THE

GLASGOW UNIVERSITY CALENDAR

FOR THE YEAR

1909-10

GLASGOW
JAMES MACLEHOSE & SONS, 61 ST. VINCENT ST.
Publishers and Booksellers to the University
1909

The Oldest Scottish Office—Established 1805.

CALEDONIAN
INSURANCE COMPANY

Head Office—19 GEORGE STREET, EDINBURGH.

LIFE ASSURANCES granted WITH OR WITHOUT Medical Examination on exceptionally liberal terms.

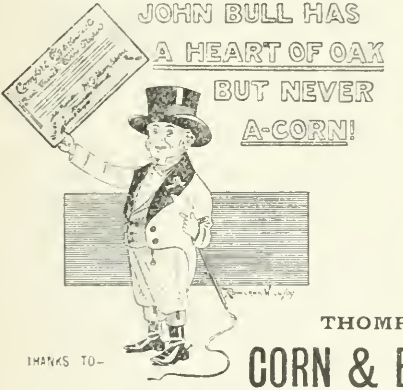
FIRE INSURANCES at Moderate Rates with Highest Security. Losses promptly settled. Surveys made free of charge.

Personal Accident and Illness, Employers' Liability, Burglary.

Applications for Agencies Invited.

GLASGOW OFFICE—64 ST. VINCENT STREET.

Secretary—PATRICK MACNEIL.



RAISE yourself to a higher Altitude of Mental and Physical Vigour by taking

NERVETONINE

which Nourishes the Brain, Strengthens the Muscle, and imparts Fresh Power and Vitality to the whole Constitution in a marvellously short space of time.

Post free, 1/10, 2/10, etc.

THOMPSON'S ORIGINAL

CORN & BUNION PLASTER

A Sure Cure. Never Fails. A large sheet (post free) 1/2.

ONLY FROM **M. F. THOMPSON,** HOMŒOPATHIC CHEMIST,
17 GORDON STREET, GLASGOW.

GIVE your LADY Friend a Lovely Casket of Thompson's Exquisite Perfumery. Prices to suit every one.

With the Compliments of the
University of Glasgow.

Please acknowledge receipt to

THE LIBRARIAN,
THE UNIVERSITY,
GLASGOW

Digitized by the Internet Archive
in 2008 with funding from
Microsoft Corporation

http://www.archive.org/details/calendar19091910univuoft

Fruitarian Snack and Lunch Room

28 BUCHANAN STREET
AND
43 ARGYLL ARCADE, :: | GLASGOW.

The Choicest Viands Delicately Cooked by Super-Heated Steam, in Jacketed Boilers of Pure Nickel, and Daintily Served.

FRUITARIAN BREAKFASTS, PORRIDGE (Varied)

From 9 o'clock.

SNACKS . . . . 9 to 12.
LUNCHEONS . . . . . . 12 to 3.
HIGH TEAS . . . . . . 3 to 6.45.

CRANSTONS' TEA ROOMS, LTD.

STUART CRANSTON, Founder and Managing Director.

The HAMMOND

TYPEWRITER

Interchangeable Type

(Over 200 varieties, including 35 Languages and Mathematical and Scientific Symbols).

IS THE SIMPLEST AND MOST DURABLE TYPEWRITER,

and does the most beautiful work.

The best for all, and none can compete with it as the Machine for the Literary Man, the Scientist or the Scholar.

Send for Catalogue or call and see the Machine at work.

THE AMERICAN AGENCY,

126 HOPE STREET, GLASGOW.

UNIVERSITY CONTRACTORS.

Instrument Makers to the Admiralty.

Telegrams :
"Technical," Glasgow.
"Science," Edinburgh.
"Physical." Liverpool.

BAIRD & TATLOCK,

45 RENFREW STREET,
GLASGOW;

7 Teviot Place
(opposite University),
EDINBURGH.

164 Brownlow Hill
(opposite University),
LIVERPOOL.

Laboratory Furnishers, and Scientific Instrument Makers, Manufacturing Electricians, Chemical Dealers.

Laboratories completely equipped, including Chemical Benches, Physical Tables, Manual Instruction Benches, Fume Chambers, Apparatus Cupboards, Sinks, Gas and Water Fittings, etc., etc.

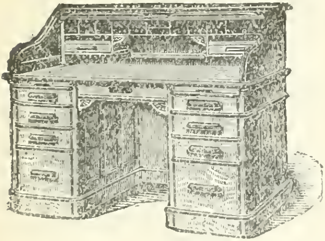
Specifications and Estimates on application.

Special Apparatus and Repairs in Wood, Metal, and Glass executed in our own Workshops at moderate prices. Inventions carried out.

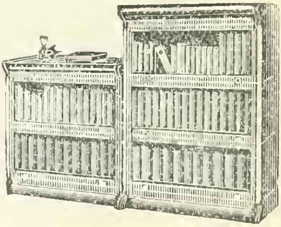
On the War Office, India, and Colonial Lists. Contractors to the G.P.O.

STUDENTS' REQUISITES A SPECIALITY.

The Largest Stock of Library, Study, and Office Furniture in Scotland.



ROLL-TOP DESKS.



EXTENSION BOOKCASES.

CATALOGUES ON APPLICATION.

FRANCIS SMITH, Cabinetmaker and Upholsterer

137a ST. VINCENT STREET, GLASGOW.
(REMOVED FROM GORDON STREET.)

Established 1835.
Telephones No. 366.

61 St. Vincent Street, Glasgow, July, 1909.

Glasgow University Calendar Advertising Sheet.

SESSION 1909-1910.

Macmillan & Co.'s Publications

UNIVERSITY OF GLASGOW

Preliminary Examination, 1910.

Shakespeare's Twelfth Night. K. Deighton
—— Twelfth Night. Eversley Edition. With Notes
Milton's Comus. W. Bell.
Scott's Fortunes of Nigel. With Introduction and Notes.
Moliere's L'Avare. [illegible]
—— L'Avare. L. M. Moriarty.
Mérimée's Colomba. G. E. Fasnacht
Beaumarchais—Le Barbier de Séville. [illegible]
Buchheim's Balladen und Romanzen
Schiller's Maria Stuart. C. Sheldon
—— Maria Stuart. H. Schoenfeld.

M.A. Pass Examination, 1910.

SINGLE COURSE STUDENTS.

Terence's Phormio. John Bond and A. S. Walpole.
Cicero's Fourth Verrine Oration. F. W. Hall.
Virgil's Georgics. Book I. With Notes and Vocabulary. T. E. Page.

DOUBLE COURSE STUDENTS.

Virgil's Bucolics and Georgics. T. E. Page
Horace's Satires. Arthur Palmer.
—— Epistles and Ars Poetica. Prof. A. S. Wilkins
Plautus's Captivi. A. R. S. Hallidie.
Terence's Adelphoe. S. G. Ashmore
—— Hauton Timorumenos. E. S. Shuckburgh.
With Translation. [illegible]
—— Phormio. John Bond and A. S. Walpole
Catullus's Select Poems. F. P. Simpson
The Text of this Edition is carefully expurgated for School use.
Propertius's Select Poems. J. P. Postgate.
Cicero's Catiline Orations. A. S. Wilkins.
—— Second Philippic Oration. John E. B. Mayor.
—— Fourth Verrine Oration. F. W. Hall.

SINGLE COURSE STUDENTS.

Homer's Odyssey. Books XXI.-XXIV. S. G. Hamilton.
Euripides's Iphigenia in Tauris. E. B. England.
Demosthenes's Adversus Leptinem. [illegible]
Bury's History of Greece to the Death of Alexander the Great
Chaucer's Prologue. A. W. Pollard.
—— Prologue. M. H. Liddell.
—— Prologue. A. Ingraham.
Shakespeare's Macbeth. K. Deighton. With an Appendix.
—— Macbeth. Eversley Edition. With Notes.
—— Macbeth (Text only). Sewed.
—— Henry IV. Part I. K. Deighton
—— Henry IV. Part II. K. Deighton
—— Henry IV. Parts I. and II. Eversley Edition. With Notes.
Wordsworth's Poems (Contains the prescribed Works). Chosen and Edited by M. Arnold.
Helps to the Study of Arnold's Wordsworth. R. Wilson. Sewed.
Shelley's Poems. (Contains Adonais). Selected and arranged by S. A. Brooke.

MACMILLAN & CO., LTD., LONDON.

Macmillan & Co.'s Publications

M.A. Pass Examination, 1910—Single Course Students—*continued.*	s.	d.
Byron's Childe Harold's Pilgrimage. Cantos III. and IV. E. E. Morris,	1	9
——— **Childe Harold's Pilgrimage** Cantos III. and IV. J. H. Fowler,	1	0
Coleridge's Ancient Mariner. P. T. Creswell,	1	0
Palgrave's Golden Treasury of Songs and Lyrics. Popular Edition, (net)	1	0
Notes to Palgrave's Golden Treasury. Books I.-IV.,	2	6
Palgrave's Golden Treasury, Book Second. W. Bell,	1	6
——— **Book Third.** J. H. Fowler,	1	6
Corneille's Le Cid. G. E. Fasnacht,	1	0
Racisse's Andromaque. C. A. Jaccard, L-ès-L.	[*In the Press.*	
Moliere's Les Precieuses Ridicules. G. E. Fasnacht,	1	0
———**Le Misanthrope.** G. E. Fasnacht,	1	0
La Bruyere's Les Caracteres (Selections). Adapted and Edited by E. Pellissier,	2	6

DOUBLE COURSE STUDENTS.

Moliere's Le Misanthrope. G. E. Fasnacht,	1	0
Pascal's Pensees, Maximes et Reflexions de Pascal—La Rochefoucauld—Vauvenargues. A. T. Baker,	2	0
De Vigny's Cinq Mars. Adapted and Edited by G. G. Loane,	2	6

SINGLE COURSE STUDENTS.

Heine's Die Harzreise. Dr. O. Schlapp.	[*In the Press.*	

New and Recent Books.

Social Life at Rome in the Age of Cicero. By W. Warde Fowler, M.A., Author of "The Roman Festivals of the Period of the Republic," etc. With Maps and Plans. 8vo, (net)	10	0
Monuments of Christian Rome from Constantine to the Renaissance. By Arthur L. Frothingham, Ph.D., Professor of Archæology and Ancient History at Princeton University. Illustrated. Extra Crown 8vo. (*Handbooks of Archæology and Antiquities*),	10	6
The Provinces of the Roman Empire from Caesar to Diocletian. By Theodor Mommsen. With 10 Maps. Second Impression. 2 vols., (net)	21	0
The text of this second impression has been revised throughout by Prof. Haverfield, who has added a new appendix on Roman Britain.		
Civil War and Rebellion in the Roman Empire, A.D. 69-70. A Companion to the "Histories" of Tacitus. By Bernard W. Henderson, M.A. 8vo., (net)	8	6
The Ancient Greek Historians (Harvard Lectures). By J. B. Bury, Litt.D., LL.D., Regius Professor of Modern History in the University of Cambridge. 8vo, (net)	7	6
Greek Architecture. By Professor Allan Marquand, Ph.D., L.H.D. Illustrated. Extra Crown 8vo. (*Handbooks of Archæology and Antiquities*), (net)	10	0
Herodotus. Books VII.-IX. With Introduction, Text, Apparatus, Commentary, Appendices, Indices, Maps. By Reginald Walter Macan, D.Litt., University Reader in Ancient History, Master of University College, Oxford. 3 vols. 8vo, (net)	30	0
Vol. I. Part I. Introduction, Book VII. (Text and Commentaries).		
Vol. I. Part II. Books VIII. and IX. (Text and Commentaries).		
Vol. II. Appendices, Indices, Maps.		
Herodotus. Books IV.-VI. By the same Editor. In 2 vols., (net)	20	0
The Characters of Theophrastus. An English Translation from a Revised Text, with Introduction and Notes by R. C. Jebb, M.A., Fellow and Assistant Tutor of Trinity College, Cambridge, and Public Orator of the University, 1870. A new edition, edited by J. E. Sandys, Litt.D., Fellow of St. John's College, and Public Orator. 8vo, (net)	7	6
The Acharnians of Aristophanes. Edited, with Prose Translation, Notes, and Commentary, by W. J. M. Starkie,	[*Shortly.*	

MACMILLAN & CO., LTD., LONDON.

Macmillan & Co.'s Publications

New and Recent Books

The Eumenides of Aeschylus. With an Introduction, Commentary, and Translation, by A. W. Verrall, Litt.D., Fellow of Trinity College, Cambridge. 8vo, (net) 10 0

∴ *Uniform with Dr. Verrall's editions of* The Agamemnon and The Choephori. 10s. net each.

St. Paul's Epistles to the Thessalonians. Greek Text with Introduction and Notes by George Milligan, D.D. 8vo, 12 0

Vol. IV., completing the work just published.

The Cambridge Natural History. In Ten Volumes. Fully Illustrated. 17s. net each. Vol. IV.—Crustacea, by Geoffrey Smith, M.A., and the late W. F. R. Weldon, M.A. Trilobites, by Henry Woods, M.A. Introduction to Arachnida and King-Crabs, by A. E. Shipley, M.A., F.R.S. Eurypterida, by Henry Woods, M.A. Scorpions, Spiders, Mites, Ticks, etc., by Cecil Warburton, M.A. Tardigrada (Water-Bears), by A. E. Shipley, M.A., F.R.S. Pentastomida, by A. E. Shipley, M.A., F.R.S. Pycnogonida, by D'Arcy W. Thompson, C.B., M.A.

∴ *A Complete Prospectus with specimen pages, post free on application.*

The French Revolution. A Short History by Professor R. M. Johnston, M.A. (net) [illegible]

Oxford Lectures on Poetry. By A. C. Bradley, (net) 10 0

The Life and Times of Laurence Sterne. By Professor Wilbur L. Cross. (net) 10 [illegible]

Graphical Methods in Applied Mathematics. A Course of Work in Mensuration and Statics for Engineering and other Students. By G. C. Turner, [illegible]

A Text-Book of Sound. By Edwin H. Barton, D.Sc. (Lond.), F.R.S.E., A.M.I.E.E., Professor of Experimental Physics, University College, Nottingham, (net) 10 6

Modern Views of Electricity. By Sir Oliver Lodge, D.Sc., LL.D., F.R.S. Third Edition, Revised. With Illustrations, [illegible] 0

A Text Book of Botany. By Dr. E. Strasburger, Dr. Fritz Noll, Dr. H. Schenck and Dr. George Karsten. Third English Edition, revised with the Eighth German Edition by Dr. W. H. Lang. With 779 Illustrations, in part coloured, (net) [illegible]

The Frog. An Introduction to Anatomy, Histology and Embryology. By A. M. Marshall, [illegible]

An Elementary Course of Practical Zoology. By Prof. T. J. Parker. Second Edition, 10 6

Comparative Anatomy of Vertebrates. Adapted from the German of Dr. Robert Wiedersheim by Prof. W. N. Parker, Ph.D. Third Edition. (net) 16 0

Applied Mechanics for Engineers. By E. L. Hancock. (net) [illegible]

MACMILLAN & CO., Ltd., London.

Macmillan & Co.'s Publications

Higher Pure Mathematics.

		S.	D.
Durell's Course of Plane Geometry for Advanced Students, Part I. [*Part II. in the press.*]	(net)	5	0
Gibson's Elementary Treatise on the Calculus,		7	6
——— Introduction to the Calculus,		3	6
——— Elementary Treatise on Graphs.		3	6
Edwards's Differential Calculus,		14	0
——— Differential Calculus for Beginners,		4	6
——— Integral Calculus for Beginners,		4	6
Muir's Theory of Determinants in the Historical Order of Development Part I. Second Edition. General Determinants up to 1841. Part II. Special Determinants up to 1841.	(net)	17	0
Weld's Theory of Determinants.		7	6
Greenhill's Elliptic Functions,		12	0
——— Differential and Integral Calculus,		10	6
Dixon's Elliptic Functions.		5	0
Gray and Matthew's Treatise on Bessel Functions,	(net)	14	0
Forsyth's Differential Equations,		14	0
Lambert's Differential and Integral Calculus,		7	6
Page's Ordinary Differential Equations.		6	6
Joly's Manual of Quaternions,	(net)	10	0
Kelland and Tait's Introduction to Quaternions. Revised by C. G. Knott,		7	6
Todhunter's Differential Calculus, Key, 10s. 6d.		10	6
Todhunter's Integral Calculus and its Applications, Key, 10s. 6d.		10	6
Todhunter's Theory of Equations,		7	6
Carslaw's Introduction to the Theory of Fourier's Series and Integrals, and the Mathematical Theory of the Conduction of Heat,	(net)	14	0

Natural Philosophy.

		S.	D.
Roberts's Treatise on Elementary Dynamics,		4	6
Greaves's Treatise on Elementary Statics,		5	0
——— Statics for Beginners,		3	6
Macgregor's Elementary Treatise on Kinematics and Dynamics,		10	6
Lock's Elementary Statics,		3	6
——— Elementary Dynamics,		3	6
Dobbs's Elementary Geometrical Statics,		8	6
Hertz's Principles of Mechanics. Translated by D. E. Jones and J. T. Whalley,	(net)	10	0
Hicks's Dynamics of Particles and Solids		6	6
Sanderson's Hydrostatics for Beginners,		2	6
Greenhill's Treatise on Hydrostatics,		7	6
Aldous's Elementary Course of Physics. Complete, Part I. Mechanics, Properties of Matter, Hydrostatics, Heat. By Rev. J. C. P. Aldous. 4s. 6d. Part II. Wave Motion, Sound and Light. By W. D. Eggar. 2s. 6d. Part III. Magnetism and Electricity. By F. R. Barrel. 2s. 6d.		7	6
Stewart's Elementary Physics,		4	6
Stewart and Gee's Elementary Practical Physics. Vol. I. General Physical Processes, 6s. Vol. II. Electricity and Magnetism, 7s. 6d. Vol. III. Part I. Practical Acoustics. By C. L. Barnes, 4s. 6d.			

MACMILLAN & CO., LTD., LONDON.

Macmillan & Co.'s Publications

NATURAL PHILOSOPHY.

Schuster and Lee's Intermediate Course of Practical Physics	[illegible]
D. E. Jones's Examples in Physics,	[illegible]
——— Lessons in Heat and Light.	[illegible]
Robson's Practical Exercises in Heat,	[illegible]
Gregory Hadley's Class Book of Physics	*In the Press.*
Edser's Heat for Advanced Students,	[illegible]
——— Light for Students,	[illegible]
Clay's Practical Exercises in Light	[illegible]
Preston's Theory of Light. New Edition. Edited by [illegible] J. [illegible], M.A.	(net) [illegible]
——— Theory of Heat. New Edition. Edited by Prof. J. R. Cotter.	(net) [illegible]
Daniell's Physics for Students of Medicine,	[illegible]
——— Text Book of the Principles of Physics,	[illegible]
Hadley's Practical Exercises in Electricity and Magnetism	[illegible]
——— Magnetism and Electricity for Students.	[illegible]
Thompson's Elementary Lessons in Electricity and Magnetism	[illegible]

Chemistry.

Roscoe's Lessons in Elementary Chemistry	[illegible]
Remsen's College Text Book of Chemistry,	[illegible]
——— Inorganic Chemistry,	[illegible]
Roscoe and Harden's Inorganic Chemistry for Advanced Students,	[illegible]
Remsen's Organic Chemistry,	[illegible]
Cohen's Practical Organic Chemistry for Advanced Students,	[illegible]
Cohen's Theoretical Organic Chemistry	[illegible]
Roscoe and Schorlemmer's Inorganic and Organic Chemistry. Vol. I. The Non-Metallic Elements. New Edition. [illegible] Vol. II. Metals. New Edition. [illegible] Vol. III. Organic Chemistry. Six Parts. Parts II., IV., and VI. [illegible] Part III. [illegible]	
Walker's Introduction to Physical Chemistry,	(net) 10 [illegible]
Bailey's Elements of Quantitative Analysis,	[illegible]

Geology, etc.

Geikie's Text-Book of Geology. In 2 Vols.	(net) [illegible] 0
——— Class Book of Geology,	[illegible] 0
——— Ancient Volcanoes of Great Britain. 2 Vols.	(net) [illegible] 0
Zittel's Text Book of Palæontology. Vol. I.	(net) [illegible] 0
——— Vol. II.,	(net) [illegible] 0
Miers's Mineralogy.	(net) [illegible] 0
Phillips's Treatise on Ore Deposits. Revised and Re-written by Prof. H. Louis.	28 0

Biology.

Bower and Gwynne Vaughan's Practical Botany for Beginners,	[illegible] 6
Parker and Haswell's Text-Book of Zoology,	(net) 36 0
——— Manual of Zoology,	10 [illegible]
Parker's Elementary Practical Zoology. 2nd Edition.	10 6
——— Course of Instruction in Zootomy (Vertebrata)	8 6
——— Lessons in Elementary Biology.	10 6
Howes's Atlas of Practical Elementary Zootomy,	(net) 10 0
Foster and Balfour's Elements of Embryology,	10 6
Huxley's Lessons in Elementary Physiology	4 6
Huxley and Martin's Practical Instruction in Elementary Biology,	10 6

MACMILLAN & CO., Ltd., London.

Macmillan & Co.'s Publications

For Degrees in Medicine and Surgery.

		S.	D.
Allbutt and Playfair's System of Gynæcology,	(net)	25	0
Allchin's Manual of Medicine. By Various Writers. Edited by Sir W. H. Allchin, M.D. Vols. I. and II. General Diseases. Vol. III. Diseases of Nervous System. Vol. IV. Diseases of Chest,	each (net)	7	6
Vol. V. Diseases of the Digestive System, and of the Liver. Diseases of the Peritoneum and of the Vessels of the Abdomen. Diseases of the Kidneys. Diseases of the Ductless Glands,	(net)	10	0
Allbutt's New System of Medicine. Each Volume,	(net)	25	0
A Second Edition, edited by SIR T. CLIFFORD ALLBUTT, M.D., *and* HUMPHRY DAVY ROLLESTON, M.A., M.D., *is in course of Publication.*			
Vol. I. (2nd Edition) PROLEGOMENA AND INFECTIOUS DISEASES. Vol. II. In Two Parts (2nd Edition). Part I. INFECTIOUS DISEASES (*continued*), INTOXICATIONS. Part II. TROPICAL DISEASES AND ANIMAL PARASITES. Vol. III. (2nd Edition) GENERAL DISEASES OF OBSCURE ORIGIN, DISEASES OF THE ALIMENTARY CANAL, DISEASES OF THE PERITONEUM. Vol. IV. In Two Parts (2nd Edition). Part I. DISEASES OF THE LIVER, PANCREAS, AND DUCTLESS GLANDS. Part II. DISEASES OF THE EAR AND THROAT. Vol. V. (2nd Edition) DISEASES OF THE RESPIRATORY SYSTEM, DISORDERS OF THE BLOOD. Vol. VI. *Diseases of the Circulatory System* (*continued*), DISEASES OF MUSCLES, DISEASES OF NERVOUS SYSTEM. Vol. VII. DISEASES OF NERVOUS SYSTEM (*continued*). Vol. VIII. DISEASES OF NERVOUS SYSTEM (*continued*), MENTAL DISEASES, DISEASES OF THE SKIN.			
Hunter's Severest Anæmias. Their Infective Nature, Diagnosis and Treatment, Vol. I.,	(net)	10	0
Lockwood's Appendicitis; its Pathology and Surgery. Second Edition,	(net)	10	0
Hewitt's Anæsthetics and their Administration,	(net)	15	0
Adami's Inflammation; An Introduction to the Study of Pathology,	(net)	5	0
Turner's Epilepsy; A Study of Idiopathic Disease,	(net)	10	0
Wilkinson's Treatment of Consumption,	(net)	10	0
Wertheim and Micholitsch's The Technique of Vagino-Peritoneal Operations,	(net)	25	0
Ballance's Some Points in the Surgery of the Brain and its Membranes. Second Edition,	(net)	15	0
Shield's Diseases of the Breast,	(net)	15	0
Smith's Principles of Differential Diagnosis, with Clinical Memoranda,	(net)	7	6
Brunton's Text-Book of Pharmacology, Therapeutics, and Materia Medica,		21	0
In Two Parts,		22	6
——— **Tables of Materia Medica,**		5	0
——— **Lectures on the Action of Medicines,**	(net)	10	6
——— **On Disorders of Assimilation and Digestion,**	(net)	10	6
Ziegler's Text-Book of Pathological Anatomy and Pathogenesis,	(net)	17	0
Part II. Special Pathological Anatomy. Sect. I.-VIII., Sect. IX.-XV.,	(net)	17	0
Kahlden's Methods of Pathological Histology,		6	0
Hamilton's Text-Book of Pathology, Vol. I.,	(net)	21	0
Vol. II., Parts I. and II.,	each part (net)	15	0
Fothergill's Practitioners' Handbook of Treatment,	(net)	15	0
White's Text-Book of General Therapeutics,		8	6

MACMILLAN & CO., LTD., LONDON.

OXFORD UNIVERSITY PRESS.

BOOKS SET FOR THE UNIVERSITY OF GLASGOW, 1910.

(PRELIMINARY).

Milton: Comus. R. C. Browne. 6d. O. Elton. 1s.

Shakespeare: Twelfth Night. W. Aldis Wright. 1s. 6d.

Beaumarchais: Le Barbier de Séville. Austin Dobson. Second Edition. 2s. 6d.

George Sand: La Petite Fadette. M. Delbos. 2s. 6d.

Schiller: Maria Stuart. C. A. Buchheim. 3s. 6d.

(M.A.)

Terence: Phormio. A. Sloman. Second Edition. 3s.

Ciceronis: Orationes, Verrinae. W. Paterson. 4s.

Virgil: Georgics. Books I and II. T. L. Papillon and A. E. Haigh. 2s. 6d.

Livy: Book VII. A. R. Cluer and P. E. Matheson. 2s.

Euripides: Iphigenia in Tauris. C. S. Jerram. 3s.

Herodotus: Book IX. E. Abbott. 3s.

Goethe's Dichtung und Wahrheit. Books I-IV. C. A. Buchheim. 4s. 6d.

Heine's Harzreise. C. A. Buchheim. 2s. 6d.

Selections from Berkeley. With Introduction and Notes. A. C. Fraser. Fifth Edition. 7s. 6d.

Green's Prolegomena to Ethics. A. C. Bradley. Fifth Edition. 6s. net.

Select List of Educational Works, List of Books set for various Examinations, and Complete Catalogue (160 pages) post free.

London: HENRY FROWDE, Oxford University Press, Amen Corner, E.C.

SMITH, ELDER & CO.'S TEXT-BOOKS.

ELLIS'S DEMONSTRATIONS OF ANATOMY. Edited by CHRISTOPHER ADDISON, M.D., F.R.C.S., Lecturer on Anatomy at Charing Cross Hospital Medical School. Twelfth Edition, with over 300 Illustrations, many in Colour. Small 8vo, 12s. 6d. net.

Marshall and Hurst's Junior Course of Practical Zoology. Sixth Edition, Revised by F. W. GAMBLE, D.Sc., F.R.S., Lecturer in Zoology in the University of Manchester. With Illustrations. Crown 8vo, 10s. 6d.

Milnes Marshall's Vertebrate Embryology. A Text-Book for Students and Practitioners. With numerous Illustrations. 8vo, 21s.

Schafer's Course of Practical Histology. New, Re-written, and Cheaper Edition, with numerous Illustrations. Crown 8vo, 7s. 6d.

Bodily Deformities. Volume I. By the late E. J. CHANCE, F.R.C.S. (Eng.). Edited by JOHN POLAND, F.R.C.S. (Eng.), Surgeon to the City Orthopædic Hospital. Second Edition, with numerous Illustrations. Crown 8vo, 6s. net. *Volume II. completing the work is in the Press. Each Volume is complete in itself.*

Heath's Dictionary of Practical Surgery. Third Edition. Two vols., royal 8vo, 32s. cloth; or half morocco, marbled edges, 42s.

Cheyne's Antiseptic Surgery: its Principles, Practice, History, and Results. With 145 Illustrations. 8vo, 21s.

Cheyne's Manual of the Antiseptic Treatment of Wounds. With Woodcut Illustrations. Crown 8vo, 4s. 6d.

Finlayson's Clinical Manual for the Study of Medical Cases. Third and Cheaper Edition. With many new Illustrations. Crown 8vo, 8s. 6d.

Taylor's Index of Medicine. A Manual for the Use of Senior Students and others. With Illustrations. Crown 8vo, 12s. 6d.

Leftwich's Index of Symptoms, as a Clue to Diagnosis. Third and Enlarged Edition. Small crown 8vo, 6s. net.

Playfair's Treatise on the Science and Practice of Midwifery. Ninth Edition, with over 200 Illustrations and 8 Plates. Two vols., demy 8vo, 28s.

Barnes' System of Obstetric Medicine and Surgery. In two vols., 8vo. With numerous Illustrations. Vol. I., 18s.; Vol. II., 20s.

Lawson's Diseases and Injuries of the Eye. Sixth Edition. With 249 Illustrations. Royal 8vo, 15s. net.

Juler's Handbook of Ophthalmic Science and Practice. Third and Enlarged Edition, with additional Illustrations. 8vo, 21s. net.

Farquharson's Guide to Therapeutics. Fifth Edition. Crown 8vo, 7s. 6d.

⁂ Messrs. SMITH, ELDER & CO. will be happy to forward a copy of their Catalogue post free on application.

London: SMITH, ELDER & CO., 15 Waterloo Place, S.W.

CAMBRIDGE UNIVERSITY PRESS

Books suitable for the Preliminary Examination, 1910

Author	Work	Editor	Price
Milton	Comus	A. W. Verity	1
Shakespeare	Twelfth Night	,,	1/6
Mérimée	Colomba (*Abridged*)	A. R. Ropes	2/-
Molière	L'Avare	E. G. W. Braunholtz	2/6
Schiller	Maria Stuart	Karl Breul	3/6

Books suitable for Pass Examinations, 1910

Demosthenes	Against the Law of Leptines	J. E. Sandys	9
Herodotus	Book IX	E. S. Shuckburgh	1
Homer	Odyssey, Book XXI	G. M. Edwards	2
Cicero	Tusculan Disputations, Bks. I II	T. W. Dougan	10/ net
Horace	Satires, Book I	J. Gow	2
,,	Epistles, Book I	E. S. Shuckburgh	2/6
Vergil	Bucolics	A. Sidgwick	1/6
,,	Georgics, Books I II	,,	2
,,	,, Books III IV	,,	2
Molière	Le Misanthrope	E. G. W. Braunholtz	2/6

A COMPANION TO GREEK STUDIES. Edited by LEONARD WHIBLEY, M.A., Fellow of Pembroke College, University Lecturer in Ancient History. Second Edition. Royal 8vo, with 141 Illustrations and 5 Maps, 18s. net.

The contents include chapters on Geography, Fauna and Flora; History, Literature, Philosophy, and Science; Art, Mythology, and Religion, Public Antiquities, Private Antiquities; Criticism and Interpretation. A detailed prospectus will be sent on application.

A HISTORY OF CLASSICAL SCHOLARSHIP. By JOHN EDWIN SANDYS, Litt.D., Fellow and Lecturer of St. John's College and Public Orator in the University of Cambridge. In three volumes. Crown 8vo.

Vol. I. From the Sixth Century B.C. to the end of the Middle Ages. Second Edition. With 24 Illustrations. 10s 6d net.

Vol. II. From the Revival of Learning to the End of the Eighteenth Century (in Italy, France, England, and the Netherlands). With 10 Illustrations. 8s 6d net

Vol. III. The Eighteenth Century in Germany and the Nineteenth Century in Europe and the United States of America. With 22 Illustrations. 8s 6d net.

"A monument of compressed information, sound scholarship, and solid learning.... There is nothing of the kind, so far as we know, in English literature; and the work has here been so thoroughly done that it is not likely to be superseded. It does honour to Cambridge, and, indeed, to England, so comprehensive is it in its scope, and so rich and varied in its treatment of the subject."—*Times*

CAMBRIDGE UNIVERSITY PRESS

London: Fetter Lane. Edinburgh: 100 Princes Street

Messrs. BELL'S NEW BOOKS

NEW WORK BY DR. ALEX. SMITH.

Now Ready. Demy 8vo. 6s. 6d. net.

GENERAL CHEMISTRY FOR COLLEGES.

By Alexander Smith, B.Sc., Ph.D., F.R.S.E., Professor of Chemistry and Director of General and Physical Chemistry in the University of Chicago. Author of "An Introduction to General Inorganic Chemistry," etc.

"All who have used the author's 'Introduction to General Inorganic Chemistry' will give a hearty welcome to this more elementary text-book. . . . There is no text-book of systematic and theoretical Chemistry which we would sooner place in the hands of a boy in his sixth form at school or his first year at the University."—*School World.*

16th Thousand. 8vo. 780 pages. 7s. 6d. net.

INTRODUCTION TO GENERAL INORGANIC CHEMISTRY. By Alexander Smith, B.Sc., Ph.D.

Third Edition. Crown 8vo. 2s. 6d.

A LABORATORY OUTLINE of GENERAL CHEMISTRY. By Alexander Smith, B.Sc., Ph.D. Third Edition, revised in collaboration with William J. Hale, Instructor in General Chemistry in the University of Michigan. 146 pages, interleaved throughout. With 20 Illustrations.

12mo. 5s.

AN INTRODUCTION TO POETRY. By Raymond M. Alden, Assistant Professor in Stanford University; Author of "The Art of Debate" and "English Poetry."

"On the whole, it would be hard to find a book which can be placed with equal confidence in the hands of pupils, while examination of its contents will repay experts. I trust that its merits may receive due recognition."—Mr. T. S. Omond in the *Academy.*

8vo. 618 pages. 8s. 6d. net.

ETHICS. By John Dewey, Professor of Philosophy in Columbia University and James H. Tufts, Professor of Philosophy in the University of Chicago.

"From no other book would a general reader obtain in so brief a compass so wide a view of the moral work of to-day, set forth in so positive, lucid and interesting a fashion."—G. H. Palmer, *Professor in Harvard University.*

8vo. 6s. 6d. net.

ECONOMICS: A Briefer Course. By Henry Rogers Seager, Professor of Political Economy in Columbia University.

Crown 8vo. 6s. net.

HISTORY OF THE LATIN and TEUTONIC NATIONS (1494-1514). By Leopold von Ranke. A revised translation by G. R. Dennis, B.A. (Lond.). With an Introduction by Edward Armstrong, M.A., Queen's College, Oxford.

"In the new edition all the errors of translation to be found in the edition of 1887 have been subject to thorough revision by Mr. G. R. Dennis. Useful additions are a new index and a full analytical table of contents. . . . A long and scholarly introduction has been written by Mr. Edward Armstrong."—*Outlook.*

Crown 8vo. 6s. 6d. net.

MEDIÆVAL EUROPE (395-1270). By Charles Bemont and George Monod. Translated under the Editorship of George Burton Adams, Professor in Yale University.

London: GEORGE BELL & SONS, York House, Portugal Street, W.C.

MESSRS. BELL'S BOOKS.

CORPUS POETARUM LATINORUM,

A SE ALIISQUE DENUO RECOGNITORUM ET
BREVI LECTIONUM VARIETATE INSTRUCTORUM

EDIDIT

JOHANNES PERCIVAL POSTGATE

Two volumes, Large Post 4to, 25s. net each; or in Parts. Parts I. and II. 12s. net each; Parts III. and IV. 9s. net each. Part V. 6s. net.

Contents of Vol. I.—Part I. **Ennius, Lucretius, Catullus, Virgil, Horace, Tibullus.** Part II. **Propertius, Ovid.**

Contents of Vol. II.—Part III. **Grattius, Manilius, Phaedrus, Aetna, Persius, Lucan, Valerius Flaccus.** Part IV. **Calpurnius, Siculus, Columella X., Silius Italicus, Statius.** Part V. **Martial, Juvenal, Nemesianus.**

The following scholars have co-operated with Dr. Postgate in this work:—Malvin Bechert, J. B. Bury, G. A. Davies, J. D. Duff, G. M. Edwards, Robinson Ellis, James Gow, W. E. Heitland, Eduard Hiller, A. E. Housman, L. Müller, H. A. J. Munro, H. Nettleship, S. G. Owen, Arthur Palmer, Heinrich Schenkl, W. C. Summers.

Detailed Prospectus on Application.

HOW TO PRONOUNCE LATIN. A Few Words to Teachers and Others. By J. P. POSTGATE, Litt.D. Post 8vo. [illegible] net.

The introduction of some order into the chaos of Latin pronunciation is beyond doubt justly to be described as a pressing need of classical teaching. The object of this essay is to present the facts and issues upon which a judgment must proceed in as clear and simple a form as possible.

THE PLAYS OF ARISTOPHANES. The Greek Text revised, and a Metrical Translation on opposite pages, together with Introduction and Commentary. By BENJAMIN BICKLEY ROGERS, M.A.

New Volume.

THE PLUTUS, WITH THE MENAECHMI OF PLAUTUS. 8s. 6d. Or the **Menaechmi** separately, 1s. 6d.

Previously Published

THE FROGS AND THE ECCLESIAZUSAE. 15s. Or separately, Frogs, 10s. 6d.; **Ecclesiazusae**, 7s. 6d.

THE THESMOPHORIAZUSAE. 7s. 6d.

THE BIRDS, 10s. 6d.

HANDBOOKS OF ENGLISH LITERATURE.

Edited by PROFESSOR HALES.

Crown 8vo. 3s. 6d. net each volume.

The Age of Chaucer (1346-1400). By F. J. Snell, M.A. With an Introduction by Professor Hales.

The Age of Transition (1400-1580). By F. J. Snell, M.A. With an Introduction by Professor Hales. 2 vols.

The Age of Shakespeare (1579-1631). By Thomas Seccombe and J. W. Allen. 2 vols. **Vol. I. Poetry and Prose.** Vol. II. **Drama.** Second Edition Revised.

The Age of Milton (1632-1660). By the Rev. J. H. B. Masterman, M.A. With an Introduction, etc., by J. Bass Mullinger, M.A. Third Edition.

The Age of Dryden (1660-1700). By R. Garnett, C.B., LL.D. Fourth Edition.

The Age of Pope (1700-1744). By John Dennis. Fourth Edition.

The Age of Johnson (1744-1798). By Thomas Seccombe. Second Edition.

The Age of Wordsworth (1798-1832). By Professor C. H. Herford, Litt.D. Fourth Edition.

The Age of Tennyson (1830-1870). By Professor Hugh Walker, M.A. Fourth Edition.

London: GEORGE BELL & SONS, York House, Portugal Street, W.C.

MESSRS BELL'S BOOKS.

THE BEST PRACTICAL WORKING DICTIONARY,

WEBSTER'S INTERNATIONAL DICTIONARY.

TWENTIETH CENTURY EDITION.

Revised throughout with a Supplement of 25,000 Additional Words, Phrases, and Definitions.

2348 pages. **5000 Illustrations.**

Price, bound in Sheepskin, £2 net; or in Cloth, 30s. net.

"In this its latest form, and with its large Supplement and numerous appendixes, it is a wonderful volume, which well maintains its ground against all rivals on its own lines. The 'definitions,' or more properly 'explanations of meaning' in 'Webster' have always struck me as particularly terse and well put; and it is hard to see how anything better could be done within the limits." DR. J. A. H. MURRAY, *Editor of the Oxford English Dictionary.*

Full Prospectus, with Specimen Pages, Opinions of Eminent Men, etc., on application.

WEBSTER'S COLLEGIATE DICTIONARY.

The largest and latest Abridgement of "The International."

1100 pages. 1400 Illustrations. Cloth, 12s. net. Sheepskin, 16s. net.

A Special thin-paper Edition of this work is also published:

Cloth, 14s. net. Sealskin, 21s. net.

Full Prospectus, with Specimen Pages, on application.

GASC'S FRENCH DICTIONARIES.

GASC'S OCTAVO DICTIONARY (FRENCH-ENGLISH AND ENGLISH-FRENCH).

Tenth Edition. 960 pages, large 8vo, in treble columns, bound in half buckram.

Price 12s. 6d.

GASC'S CONCISE DICTIONARY OF THE FRENCH AND ENGLISH LANGUAGES.

Fourth Edition, Revised. Medium 16mo, treble columns, xii + 941 pages. 3s. 6d.

Also in Two Parts (French-English and English-French), 2s. *each.*

Prospectus on application.

AN ITALIAN AND ENGLISH DICTIONARY.

With Pronunciation and brief Etymologies. By HJALMAR EDGREN, Ph.D.

Large 8vo. viii + 1028 pages. **15s.**

A Student's Working Dictionary, uncommonly full both in its vocabulary and in its range of meaning. The type is specially clear for so compact a volume, and the pronunciation is carefully indicated.

Prospectus on application.

London: GEORGE BELL & SONS, York House, Portugal Street, W.C.

Mr. EDWARD ARNOLD'S LIST.

A System of Clinical Medicine By T. D. Savill, M.D. New Edition [illegible]
The Body at Work. A Treatise on the General Principles of Physiology. By Dr. A. Hill, late Master of Downing College, Cambridge. 16s. net.
Further Advances in Physiology By Leonard Hill, B. Moore, M. Flack, T. Lewis, A. Keith, M. S. Pembrey, N. H. Alcock, J. S. [illegible] and M. Greenwood, Jr. [illegible] net.
Practical Physiology. By A. P. Beddard, M.D., J. S. Edkins, M.B., L. Hill, M.B., J. J. R. Macleod, M.B., and M. S. Pembrey, M.D. 12s. 6d. net.
Recent Advances in Physiology and Bio-Chemistry By Leonard Hill, Benjamin Moore, M. S. Pembrey, J. J. R. Macleod, and A. P. Beddard. 18s. net.
Lectures on Diseases of Children. By R. Hutchison, M.D. F.R.C.P. Illustrated. New and Enlarged Edition. 8s. 6d. [illegible]
Applied Physiology for Medical Students By R. Hutchison, M.D. [illegible]
Human Embryology and Morphology By A. Keith, M.D. [illegible]
Manual of Human Physiology By Leonard Hill, M.B. [illegible]
Elementary Physiology for Teachers and Scholars. By W. B. Drummond, M.B. [illegible]
Experimental Psychology By C. S. Myers, Professor of Psychology at King's College, London. 8s. 6d. net.
A Manual of Pharmacology for Students By Prof. W. E. Dixon. [illegible] net.
Lectures on Theoretical and Physical Chemistry By Dr. J. H. Van 't Hoff, Professor of Chemistry in University of Berlin. 3 vols. [illegible]
A Text Book of Physical Chemistry By Dr. R. A. Lehfeldt. 7s. 6d.
A Text Book of Physics. By Dr. R. A. Lehfeldt. [illegible]
The Elements of Inorganic Chemistry By W. A. Shenstone. [illegible]
Organic Chemistry for Advanced Students. By Julius B. Cohen, Professor of Organic Chemistry in the University of Leeds. Demy 8vo. 21s. net.
Introduction to Metallurgical Chemistry for Technical Students By J. H. Stansbie. 4s. 6d.
Electrolytic Preparations. By Dr. Karl Elbs, Professor of Organic and Physical Chemistry at the University of Giessen. Translated by R. S. Hutton, M.Sc. 4s. 6d. net.
Experimental Researches with the Electric Furnace By the late Professor Henri Moissan. Translated by A. T. de Mouilpied. 10s. 6d. net.
On the Calculation of Thermo Chemical Constants By H. S. Redgrove. [illegible]
The Theory of Optics. By A. Schuster, F.R.S., Director of the Physical Laboratories, Victoria University, Manchester. Demy 8vo. [illegible] net.
The Balancing of Engines. By Prof. W. E. Dalby, M.Inst.C.E. [illegible] net.
Valves and Valve Gear Mechanisms By Prof. W. E. Dalby. [illegible] net.
A Text Book of Electrical Engineering By Dr. A. Thomälen. Translated by G. W. O. Howe, M.Sc. New Edition. Royal 8vo. [illegible] net.
Applied Electricity By J. Paley Yorke. [illegible]
Electric and Magnetic Circuits. By E. H. Crapper, M.I.E.E. 10s. 6d. net.
Alternating Currents A Text Book for Students. By C. G. Lamb. 10s. 6d. net.
Hydraulics. By R. Busquet, Professor at the École Industrielle de Lyon. 7s. 6d. net.
Hydraulics. By F. C. Lea, B.Sc. New Edition. 18s. net.
The Strength and Elasticity of Structural Members By R. J. Woods, M.E., M.Inst.C.E. 292 Diagrams. 10s. 6d. net. Second Edition.
The Theory of Structures By R. J. Woods. 10s. 6d. net.
Mathematical Drawing. By G. M. Minchin and J. B. Dale. 7s. 6d.
Projective Geometry By L. N. G. Filon, D.Sc. 7s. 6d.
Vectors and Rotors. By O. Henrici, Ph.D., LL.D., and G. C. Turner, B.Sc. 4s. 6d.
Oblique and Isometric Projection By J. Watson. 3s. 6d.
Electricity and Magnetism. By C. E. Ashford. 3s. 6d.
Outlines of Physiography By A. J. Herbertson. 4s. 6d. net.
The Evolution Theory By August Weismann. Translated by Professor J. Arthur Thomson. 2 vols. 32s. net.
A History of England. By C. W. Oman, M.A., Professor of Modern History in Oxford University. 760 pp. Crown 8vo, cloth, 5s. (Also sold in Parts.)
English Political Philosophy. By Prof. William Graham. 10s. 6d. net.

London: EDWARD ARNOLD, 41 & 43 Maddox Street, W.

BLACKIE & SON'S LIST.

Books suitable for GLASGOW UNIVERSITY EXAMINATIONS, 1909-1910

PRELIMINARY

AUTHOR.	WORK.	EDITOR.	PRICE.
Shakespeare	Twelfth Night	Arthur D. Innes, M.A.	1/6
Milton	Comus	Rev. E. A. Phillips, M.A.	1/6
Molière	L'Avare	G. H. Clarke, M.A.	0/10
Mérimée	Colomba	E. T. Schoedelin, B.A.	1/6
Beaumarchais	Le Barbier de Séville	W. G. Hartog, B.A.	0/8

PASS.

AUTHOR.	WORK.	EDITOR.	PRICE.
Terence	Phormio	W. Cecil Laming, M.A.	4/6
Virgil	Georgics, I. II. III. IV.	S. E. Winbolt, M.A.	each 1/6
Virgil	Georgics, I. II. III. IV. (Text only)	S. E. Winbolt, M.A.	each net 0/6
Virgil	Eclogues (Bucolics)	S. E. Winbolt, M.A.	net 0/6
Plautus	Captivi	Rev. J. Henson, M.A.	2/-
Chaucer	Prologue to the Canterbury Tales.	E. F. Willoughby, M.D.	1/6
Shakespeare	Macbeth	Edmund K. Chambers, M.A.	1/-
Shakespeare	Henry the Fourth, Pt. I.	F. W. Moorman, B.A.	1/6
Wordsworth	Laodamia	H. B. Cotterill, M.A.	0/3
Wordsworth	Shorter Poems (Including *Resolution and Independence*)		Paper 2d., cloth /3
Wordsworth	English Tales in Verse (Including *Michael*)		2/6
Shelley	Adonais	Agnes Ramsey.	Paper 2d., cloth /3
Byron	Childe Harold, Canto III.	John Downie, M.A.	Paper 2d., cloth /3
Byron	Childe Harold, Canto IV.	David Frew, B.A.	0/6
Coleridge	Ancient Mariner	Walter Dent.	Paper 2d., cloth /3
Palgrave	Golden Treasury, Book 2		net 0/6
Molière	Les Précieuses Ridicules	G. H. Clarke, M.A.	0/10
La Bruyère	Les Charactères	J. Laffitte, B.es-L.	0/4
Heine	Die Harzriese	W. G. Etheridge, M.A.	0/8

HONOURS.

AUTHOR.	WORK.	EDITOR.	PRICE.
Virgil	Aeneid, I. VI.	H. B. Cotterill, M.A.	each 2/-
Virgil	Aeneid, II. III.	Prof. Sandford.	II. 2/-; III. 1/6
Virgil	Aeneid, I. to XII. (Text only)	S. E. Winbolt, M.A.	each net 0/6
Virgil	Georgics, I. II. III. IV.	S. E. Winbolt, M.A.	each 1/6
Virgil	Georgics, I. II. III. IV. (Text only)	S. E. Winbolt, M.A.	each net 0/6
Ovid	Metamorphoses I.	Ernest Ensor, B.A.	1/6
Milton	Areopagitica	W. H. D. Rouse, Litt.D.	0/6
	The Nibelungenlied (two parts)	H. B. Cotterill, M.A.	each 0/6
Warner, G. T.	Landmarks of English Industrial History.		5/-

BLACKIE & SON, Ltd., London, Glasgow, Dublin.

BLACKIE & SON'S LIST.

Books suitable for the Glasgow University Examinations, 1909-1910.

Introduction to the Natural History of Language. By T. G. Tucker, Litt.D. (Camb.), Hon.Litt.D. (Dublin), Professor of Classical Philology in the University of Melbourne. 10s. 6d. net

English Etymology. A select glossary serving as an Introduction to the History of the English Language. By F. Kluge and F. Lutz. 5s. net.

The Literature of the Celts. By Magnus Maclean, M.A., D.Sc. 7s. 6d. net

The Literature of the Highlands. By Magnus Maclean, M.A., D.Sc. 7s. 6d. net.

The Call of the Homeland. By R. P. Scott, LL.D., and K. T. Wallas, M.A. 4s. 6d. net.

A Pagent of Elizabethan Poetry. Selected and arranged by Arthur Symons. 6s. net.

A Brief Survey of European History. By Arthur Hassall, M.A. 4s. 6d. net.

Landmarks of European History. By E. H. M'Dougall, M.A. 3s. 6d.

A Short History of French Literature. By Professor L. E. Kastner, B.A. and Professor H. G. Atkins, M.A. 4s. 6d.

French Literature of the 17th Century. (The third section of the Short History.) Papers covers, 1s.

A Note-Book of French Literature. By Philip C. Yorke, M.A., L.es-L. Vol. I. To the end of the 18th Century. 4s. 6d. net Vol. II. 19th Century. [illegible]s. 6d. net

La France Monarchique. Selections from 40 Historians, Memoirists, and Letter-Writers, etc. By G. H. Powell, B.A., and Oswald B. Powell, B.A. 6s. net.

A Primer of Historical French Grammar. By Professor Weekley, M.A. [illegible]s. 6d.

A Text-Book of Geology. By W. Jerome Harrison, F.G.S. 3s. 6d.

Geography. Structural, Physical, Comparative. By Professor J. W. Gregory, D.Sc., F.R.S. 6s. net.

A General Geography of the World. Physical, Historical, Political. By Henry Evans, B.A., L.C.P. 3s. 6d.

The Laws of Health. A Handbook of School Hygiene. By Carstairs C. Douglas, M.D., D.Sc., F.R.S.E. 3s. net.

Practical Organic Chemistry. By Prof. J. J. Sudborough, Ph.D., D.Sc., and T. Campbell James, M.A., B.Sc. 5s. net.

A Text-Book of Organic Chemistry. English translation from the German of A. Bernthsen, Ph.D. Edited by Prof. J. J. Sudborough, Ph.D., D.Sc. 5s. net.

Systematic Inorganic Chemistry. From the standpoint of the Periodic Law. By R. M. Caven, D.Sc., and Professor G. D. Lander, D.Sc. 6s. net.

Systematic Qualitative Analysis. For Students of Inorganic Chemistry. By R. M. Caven, D.Sc. (Lond.), F.I.C. 3s. 6d. net.

Magnetism and Electricity. And the Principles of Electrical Measurements. By S. S. Richardson, B.Sc. 5s. net.

Deschanel's Natural Philosophy. Edited by Professor J. D. Everett, D.C.L., F.R.S. Sixteenth Edition. Cloth, 18s.; also in Parts, limp cloth, 4s. 6d. each.
Part I.—Mechanics, Hydrostatics, etc. Part II.—Heat. Part III.—Electricity and Magnetism. Part IV.—Sound and Light.

A Text-Book of Heat. By Charles H. Draper, B.A., D.Sc.(Lond.). 4s. 6d.

Elementary Text-Book of Dynamics and Hydrostatics. By R. H. Pinkerton, B.A. [illegible]s. 6d.

Hydrostatics and Pneumatics. By R. H. Pinkerton, B.A. 4s. 6d.

The Natural History of Plants. Their Forms, Growth, Reproduction, and Distribution. From the German of the late Anton Kerner von Marilaun. By F. W. Oliver, M.A., D.Sc., with the assistance of Lady Busk, B.Sc., and Mrs. M. F. Macdonald, B.Sc. 2000 Illustrations. In two Volumes. [illegible]s. net.

The Student's Introductory Text-Book of Systematic Botany. J. W. Oliver. 4s. 6d.

Elementary Botany. By Joseph W. Oliver. New Edition. Revised and Enlarged by W. B. Grove, M.A., Lecturer in Botany at the Birmingham Municipal Technical School. 2s.

A First Course in Practical Botany. By G. F. Scott Elliot, M.A., B.Sc., F.L.S., F.R.G.S. 3s. 6d.

A General Text-Book of Elementary Algebra. By A. E. Layng, M.A. With or without Answers, 5.0 pp. 4s. 6d.

A First Course in Analytical Geometry. Plane and Solid, with numerous examples. By Charles N. Schmall. 6s. net.

Trigonometry. Theoretical and Practical. Embodying Graphic and other Solutions by R. C. Bridgett, M.A., B.Sc., F.C.S., and William Hyslop, M.A., B.Sc. 4s. 6d.

A Brief Course in the Calculus. By Prof. William Cain, A.M., C.E. [illegible]s. net.

Euclid's Elements of Geometry. Edited by A. E. Layng, M.A. With Exercises, Appendix, and Examination Papers. Books I. to IV., and XI. 3s. 6d.
Book I., 1s.; II., 6d.; III., 1s.; IV., 6d.; V. and VI. together, 1s.; XI., 1s. 6d. Books I.-II., 1s. 3d.; I.-III., 2s.; I.-IV., 2s. 6d. Key to Book I., 2s. 6d. net.; Complete, 5s. net.

A Handy Book of Logarithms. With Practical Geometrical Appendix. 2s.

BLACKIE & SON, LTD., LONDON, GLASGOW, DUBLIN.

COMPLETE IN 50 VOLUMES, INCLUDING INDEX.

The Expositor's Bible

EDITED BY THE

Rev. W. ROBERTSON NICOLL, M.A., LL.D.

Each Volume may be had separately, price **7s. 6d.** Sets may still be obtained at Subscription Terms, viz.—Series One to Seven, containing Six Volumes, price **24s.** per set net. Eighth Series, containing Seven Volumes, price **28s.** net.

The Volumes of the different Series are not assorted on Subscription Terms.

1st Series. **St. Mark,** by the Right Rev. G. A. Chadwick, D.D., Lord Bishop of Derry and Raphoe.—**Colossians and Philemon,** by Rev. Alexander Maclaren, D.D., D.Lit.—**Genesis,** by Rev. Marcus Dods, D.D.—**Samuel** (2 vols.), by the Rev. Prof. W. G. Blaikie, D.D., LL.D. **Hebrews,** by Rev. Principal T. C. Edwards, D.D.

2nd Series. **Galatians,** by Rev. Prof. G. G. Findlay, D.D.—**Isaiah,** Chapters i.-xxxix., by Rev. Prof. G. Adam Smith, D.D., LL.D.—**The Pastoral Epistles,** by Rev. Alfred Plummer, D.D.—**1st Corinthians,** by Rev. Marcus Dods, D.D. **The Epistles of St. John,** by Most Rev. W. Alexander, D.D., Archbishop of Armagh.—**Revelation,** by Rev. Prof. W. Milligan, D.D.

3rd Series. **Judges and Ruth,** by Rev. R. A. Watson, D.D.—**The Prophecies of Jeremiah,** by Rev. C. J. Ball, M.A.—**Exodus,** by Right Rev. G. A. Chadwick, D.D., Lord Bishop of Derry and Raphoe.—**St. Matthew,** by Rev. J. Monro Gibson, D.D.—**St. Luke,** by Rev. Henry Burton, M.A.—**Isaiah,** Chapters xl.-lxvi., by Rev. Prof. G. Adam Smith, D.D., LL.D.

4th Series. **St. John,** Vol. I., by Rev. Marcus Dods, D.D.—**The Acts of the Apostles,** by Rev. Prof. G. T. Stokes, D.D.—**Leviticus,** by Rev. S. H. Kellogg, D.D.—**Proverbs,** by Rev. R. F. Horton, M.A., D.D.—**St. James and St. Jude,** by Rev. A. Plummer, D.D.—**Ecclesiastes,** by Rev. Samuel Cox, D.D.

5th Series. **Thessalonians,** by Rev. Prof. James Denney, D.D.—**Job,** by Rev. R. A. Watson, D.D. **St. John,** Vol. II., by Rev. Marcus Dods, D.D.—**Ephesians,** by Rev. Prof. G. G. Findlay, D.D.—**The Acts of the Apostles,** Vol. II., by Rev. Prof. G. T. Stokes, D.D.—**The Psalms,** Vol. I., by Rev. Alexander Maclaren, D.D., D.Lit.

6th Series. **Philippians,** by Rev. Principal Rainy, D.D.—**Kings,** Vol. I., by the late Very Rev. F. W. Farrar, D.D., F.R.S.—**Ezra, Nehemiah, and Esther,** by Rev. Prof. Adeney, M.A.—**Joshua,** by Rev. Prof. W. G. Blaikie, D.D., LL.D.—**The Psalms,** Vol. II., by Rev. Alexander Maclaren, D.D., D.Lit.—**Peter,** by Rev. Prof. Lumby, D.D.

7th Series. **Romans,** by the Right Rev. Handley C. G. Moule, D.D., Lord Bishop of Durham.—**Kings,** Vol. II., by the late Very Rev. F. W. Farrar, D.D., F.R.S. **Chronicles,** by Rev. Prof. W. H. Bennett, M.A.—**2nd Corinthians,** by Rev. Prof. James Denney, D.D.—**Numbers,** by Rev. R. A. Watson, D.D. **The Psalms,** Vol. III., by Rev. Alexander Maclaren, D.D., D.Lit.

8th Series. **Daniel,** by the late Very Rev. F. W. Farrar, D.D., F.R.S.—**The Book of Jeremiah,** by Rev. Prof. W. H. Bennett, M.A.—**Deuteronomy,** by Rev. Prof. Andrew Harper, D.D.—**The Song of Solomon and the Lamentations of Jeremiah,** by Rev. Prof. W. F. Adeney, M.A.—**Ezekiel,** by Rev. Prof. John Skinner, M.A.—**The Twelve Prophets,** by Rev. Prof. George Adam Smith, D.D., LL.D. (In 2 vols.)

The complete Index to "THE EXPOSITOR'S BIBLE" may now be obtained uniform with the Series, price 7s. 6d.

HODDER & STOUGHTON, PUBLISHERS, LONDON.

WM. BLACKWOOD & SONS' LIST.

Forest Entomology. By A. T. Gillanders. 351 Illustrations. Demy 8vo, 15s. net.
A History of European Thought in the Nineteenth Century. By John Theodore Merz. Post 8vo. Vol. I., 10s. 6d. net; Vol. II., 15s. net.
Theism. Tenth edition. 7s. 6d. **Anti Theistic Theories.** Fifth edition. 10s. 6d. By Prof. Flint.
The History of Scotland. By John Hill Burton. A new edition in 8 vols. 3s. 6d. net each.
A History of Scotland from the Roman Occupation. By Andrew Lang. In 4 vols. 3 Guineas net the Set.
Classics for English Readers. 1s. net each.
Ancient Classics:—28 Vols. Homer, Aeschylus, Plato, Sophocles, Thucydides, etc.
Foreign Classics:—18 Vols. Dante, Voltaire, Schiller, Rousseau, etc.
Philosophical Classics:—15 Vols. Descartes, Butler, Kant, Hume, Bacon, etc.
The Ethics of J. S. Mill. By Charles Douglas. 6s. net.
Methods, Meditations, etc. of Descartes. 6s. 6d.
Studies in Roman Law. By Lord Mackenzie. £1 1s.
Modern English Writers. 2s. 6d. each.
Huxley. By Edward Clodd.
Browning. By Prof. Herford.
Tennyson. By A. Lang.
Stevenson. By L. Cope Cornford.
Arnold. By Prof. Saintsbury.
Ruskin. By Mrs. Meynell.
Thackeray. By C. Whibley.
A Study of Ethical Principles. By Professor James Seth. 7s. 6d.
Periods of European Literature. Edited by Professor Saintsbury. This standard work is now Complete. In 12 Crown 8vo vols. 5s. net each.
A History of Criticism and Literary Taste in Europe. By Prof. Saintsbury. Vol. I., 16s. net. Vol. II., 20s. net. Vol. III., 20s. net.
The Development of Modern Philosophy. By the late Professor Adamson. Edited by Professor W. R. Sorley. 18s. net.
The Development of Greek Philosophy. By the same. 10s. 6d. net.
An Introductory Text Book of Logic. By S. H. Mellone, M.A., D.Sc. 5s.
An Introductory Text Book of Psychology. By S. H. Mellone, M.A., D.Sc. 5s.
Greek Prose Phrase Book. By H. W. Auden, M.A. Interleaved, 3s. 6d.
Higher Greek Prose. By H. W. Auden, M.A. 3s. 6d. Key, 5s. net.
Higher Greek Unseens. By H. W. Auden, M.A. 2s. 6d. Key, 5s. net.
Greek Test Papers. By Jas. Moir, Litt. D., LL.D. 2s. 6d. Key, 5s. net.
Higher Latin Prose. By H. W. Auden, M.A. 2s. 6d. Key, 5s. net.
Higher Latin Unseens. By H. W. Auden, M.A. 2s. 6d.
Blackwood's Classical Texts. Edited by H. W. Auden, M.A.
Blackwood's English Classics. Edited by J. H. Lobban, M.A.
An Intermediate Text-Book of Geology. By Professor Lapworth, LL.D. 5s.
A History of German Literature. By J. G. Robertson, Ph.D., Professor of German, University of London. 10s. 6d. net.
Progressive German Composition and First Introduction to German Philology. By Lewis Lubovius, Ph.D. 3s. 6d. In two parts: Composition, 2s. 6d.; Philology, 1s. 6d. Key, 5s. net.
A German Reader for Technical Schools. By E. F. Seckler. 2s.
The Tutorial Handbook of French Composition. By Alfred Mercier, L.-ès-L., St Andrews. 3s. 6d.
Historical Reader of Early French. From the Earliest Times to the end of the Fifteenth Century. By H. A. Strong, LL.D., and L. D. Barnett, M.A., D.Litt. 3s.
Modern Geometry of the Point, Straight Line, and Circle. By J. A. Third, M.A. 3s.

Catalogues sent Post Free on Application.

WILLIAM BLACKWOOD & SONS, EDINBURGH and LONDON.

James Thin's Publications.

Burns' (Robt.) Complete Works, Poems and Prose. Edited with Explanatory Notes, Various Readings, Glossary and Indices, by W. SCOTT DOUGLAS. Illustrated with Portraits, Vignettes, and Frontispieces from Drawings by SAM BOUGH, R.S.A., W. E. LOCKHART, R.S.A., CLARK STANTON, A.R.S.A., etc. 6 vols., roy. 8vo, £1 15s. net. Published at £4 10s.

—— **Complete Poetical Works.** Edited by W. SCOTT DOUGLAS. With Essay on the Life and Genius of the Poet by the late Professor JOHN NICHOL, LL.D. Illustrated with Twelve Photogravures after Drawings by MARSHALL BROWN. 4 vols., crown 8vo, cloth 12s.

Cunningham (Principal John).—The Church History of Scotland, from the Commencement of the Christian Era to the Present Time. By JOHN CUNNINGHAM, D.D., Principal of St. Mary's College, St. Andrews. Second Edition. 2 vols., post 8vo, 16s.

Knox (John).—Works, Collected and Edited, with Biographical Notes and Illustrated Papers, by DAVID LAING. Two Portraits, View, and 11 Facsimiles of Handwriting, etc. 6 vols., 8vo, cloth, new, £1 10s. net.

The only complete edition of the Works of the great Scotch Reformer, now offered at above low price in place of £3 3s.

Hamilton (Sir William).—The Works of Thomas Reid, D.D. Active and Moral Powers; Inquiry into the Human Mind, etc. With Notes and Supplementary Dissertations by SIR WILLIAM HAMILTON, Bart., Late Professor of Logic, University of Edinburgh. Prefaced with an Account of the Life and Writings of Reid, by Professor DUGALD STEWART. Two vols., 8vo. Ninth Edition. £1 1s.

Laurie (Prof. S. S.).—Primary Instruction in Relation to Education. Fifth Edition, enlarged, crown 8vo, cloth, 4s.

Macdonald (W. J.).—Higher Geometry, containing an Introduction to Modern Geometry and Elementary Geometrical Conics. Third Edition. Cloth, 3s. 6d.

Blaikie (James).—The Elements of Dynamics (Mechanics), with numerous examples and Examination Questions. New and Enlarged Edition, Thirty-ninth Thousand, with additional Examination Papers. Cloth, 3s. 6d.

Edgar (John).—History of Scottish Education from Early Times to the Period of the Reformation. 8vo, cloth, 5s. net.

Dobbin (Leonard) and Marshall (Hugh), Lectures on Chemistry in the University of Edinburgh.—SALTS AND THEIR REACTIONS: A Class Book of Practical Chemistry. With Preface by Prof. CRUM BROWN. 3s. 6d. net.

Masson (Rosaline).—Use and Abuse of English, a Handbook of Composition. With Preface by Emeritus Professor MASSON. New Edition. Crown 8vo, 1s.

The Carlyle Reader: Selections from the Writings of Thomas Carlyle. Edited, with Notes for Schools, by Rev. JAMES WOOD (Editor of Nuttall's 'Standard Dictionary' and 'Dictionary of Quotations').

Part I. Selections from Sartor Resartus—Past and Present—Chartism—Heroes and Hero Worship. Crown 8vo, cloth, 2s.

Part II. Selections from The Essays—French Revolution—Frederick the Great. Crown 8vo, cloth, 2s.

EDINBURGH: JAMES THIN, UNIVERSITY BOOKSELLER AND PUBLISHER
LONDON: SIMPKIN, MARSHALL & CO.

. . . T. & T. CLARK'S NEW BOOKS . . .

DR. HASTINGS' ONE-VOLUME DICTIONARY OF THE BIBLE.

"A very fine achievement, worthy to stand beside his larger Dictionaries, and by far the most scholarly yet produced in one volume in English-speaking countries, perhaps it may be said in the world."—THE CHRISTIAN WORLD.

1,000 pages, with Maps, etc., printed on light paper.
In Cloth Binding, 20/- net; in half leather, 25/- net.

NEW AND COMPLETE PROSPECTUS FREE.

THE CHRISTIAN DOCTRINE OF GOD. By Prof. W. N. CLARKE, D.D., Author of "An Outline of Christian Theology." New Volume—"International Theological Library." 10s. 6d.

THE BACKGROUND OF THE GOSPELS; or, Judaism in the Period between the Old and New Testaments. By W. FAIRWEATHER, M.A., D.D., Kirkcaldy. 8s. net.

THE TESTS OF LIFE. A Study of the First Epistle of St. John. By Rev. ROBERT LAW, B.D., Edinburgh. The Kerr Lectures. 7s. 6d. net.

THE PAULINE EPISTLES. A Critical Study. By ROBERT SCOTT, D.D., Bombay. New Volume—"The Literature of the New Testament." 6s. net.

OUTLINES OF INTRODUCTION TO THE HEBREW BIBLE. By ALFRED S. GEDEN, M.A., D.D., Tutor in Hebrew, Wesleyan College, Richmond. 8s. 6d. net.

BIBLICAL CRITICISM AND MODERN THOUGHT; or, The Place of the Old Testament Documents in the Life of To-Day. By Prof. W. G. JORDAN, D.D., Queen's University, Canada. 7s. 6d. net.

THE BIBLE OF NATURE. By Professor J. ARTHUR THOMSON, M.A., University of Aberdeen. 4s. 6d. net.

THE GREEK AND EASTERN CHURCHES. By Principal W. F. ADENEY, D.D., Manchester. "International Theological Library." 12s.

A HANDBOOK OF CHRISTIAN ETHICS. By J. CLARK MURRAY, LL.D., Emeritus Professor of Philosophy, M'Gill University, Montreal. 6s. net.

Edinburgh: T. & T. CLARK, 38 George Street.

CROSBY LOCKWOOD & SON'S

Technical Manuals and Science Text Books.

BUILDING CONSTRUCTION.

Marble and Marble Working, by W. G. Renwick, 15s.
Reinforced Concrete Diagrams, by G. S. Coleman, 3s. 6d. net.
Reinforced Concrete Design, by J. Hawkesworth, 12s. net.
Reinforced Concrete, by F. D. Warren, 10s. 6d. net.
Practical Building Construction, by J. P. Allen, 7s. 6d. net.
Building Inspection, by W. R. Purchase, 2s. 6d. net.
Specifications in Detail, by F. W. Macey, 21s. net.
Science of Building, by E. W. Tarn, 3s. 6d.
Practical Masonry, by W. R. Purchase, 7s. 6d. net.
Measuring Builders' Work, by E. W. Tarn, 7s. 6d.

ENGINEERING.

Compressed Air Work and Diving, by G. W. M. Boycott, 10s. 6d. net.
Surveying, by J. Whitelaw, 10s. 6d. net.
The Motor Car, a Practical Treatise, by R. W. A. Brewer, 5s. net.
Internal Combustion Engines, by Carpenter and Diederichs, 21s. net.
The Marine Steam Turbine, by J. W. Sothern, 12s. 6d. net.
Electricity in Factories and Workshops, by A. P. Haslam, 7s. 6d. net.
Wireless Telegraphy, by J. Erskine-Murray, 10s. 6d. net.
Principles of Alternating Currents, by E. T. Larner, 3s. 6d. net.
Telephones, by W. H. Radcliff and H. C. Cushing, 4s. 6d. net.
Elements of Electrical Engineering, by T. Sewell, 5s. net.

MINING AND METALLURGY.

Coal Mining (an Elementary Class-Book of), by T. H. Cockin, 4s. 6d. net.
Physics and Chemistry of Mining, by T. H. Byrom, 3s. 6d. net.
Colliery Manager's Handbook, by C. Pamely, 25s. net.
Notes and Formulæ for Mining Students, by J. H. Merivale, 2s. 6d.
Gold Mining Machinery, by W. H. Tinney, 12s. 6d. net.
Prospecting for Gold, by D. J. Rankin, 7s. 6d. net.
Field Testing for Gold and Silver, by W. H. Merritt, 5s. net.
Prospector's Handbook, by J. W. Anderson, 3s. 6d.
Metallurgy of Silver, by M. Eissler, 10s. 6d.
The Hydro-Metallurgy of Copper, by M. Eissler, 12s. 6d. net.

INDUSTRIAL ARTS AND CHEMICAL MANUFACTURES.

Industrial Alcohol, by J. K. Brachvogel, 16s. 6d. net.
Twentieth Century Book of Recipes, Formulas, etc., 12s. 6d. net.
Art of Brewing and Malting, by H. E. Wright, 12s. 6d. net.
Chapters on Papermaking, by C. Beadle, 5 vols., each 5s. net.
Practical Papermaking, by G. Clapperton, 5s. net.
Watch Repairing, Cleaning, and Adjusting, by F. J. Garrard, 4s. 6d. net.
Solubilities of Inorganic & Organic Substances, by A. Seidell, 12s. 6d. net.
Chemistry and Technology of Mixed Paints, by M. Toch, 12s. 6d. net.
Chemistry of Gas Manufacture, by H. Royle, 12s. 6d. net.
Gas Engineer's Pocket Book, by H. O'Connor, 10s. 6d. net.

[*Detailed Catalogue on Application.*]

London: CROSBY LOCKWOOD & SON,
7 Stationers' Hall Court, E.C., and 121a Victoria St, S.W.

OF IMPORTANCE TO STUDENTS

STUDENTS OF BOTANY

Why not preserve your Specimens of Plants, &c., in a methodical manner by using our

BOTANICAL ALBUM?

Interleaved with Printed Schedules on Transparent Paper for protecting your Specimens, and helping you to record the interesting and characteristic features of each plant. Strongly bound in cloth, 12¾ by 11¼ ins. Worth [illegible]s. Only 2s. 6d., post free 3s.

STUDENTS OF GEOLOGY

There is no better way to acquaint yourselves with the Geology of the country than by carrying a Geological Map of the district you are exploring.

As Official Agents for the Government Geological Survey Sheets, we hold a complete stock, and can supply any sheet at a moment's notice.

SCOTLAND

1 inch scale, each sheet [illegible] by 20 ins. Prices 1s. to 6s. per sheet. Index Map free.

Recently Published.

GEOLOGICAL MAP OF BRITISH ISLES

By PROF. TEALL.

2s. in sheets; 4s. on cloth, rollers, and varnished. A magnificent map for Geologists.

STUDENTS OF MEDICINE

You can acquire readily a thorough knowledge of the Bones of the Human Body if you have beside you our

ATLAS OF BONES AND LIGAMENTS

It contains [illegible] accurately drawn plates printed in colours and [illegible] pages of letterpress strongly bound in cloth, size [illegible] by [illegible] inches. The plates measure 14 by 11 inches when the book is opened out. Worth 15s.; only 5s.; post free 5s. 4d

STUDENTS of EVERY CLASS

will find our

Sectional Pads

of great assistance in making careful drawings of any subject.

These Pads may be had divided into Millimeters, also inches divided into 8ths, 10ths, 12ths, and 16ths.

In 2 sizes—100 sheets in each Pad. Size 8½ by 10½ in., 1s. 6d.; post free 1s. 10d. Size 8½ by 5½ in., 9d.; post free 1s.

W. & A. K. JOHNSTON, Ltd. (Dept. G.U.C.)

EDINA WORKS,
And 2 ST. ANDREW SQUARE, EDINBURGH.

Complete
in
10 Volumes

"For speedy reference, and satisfactory information on almost any topic, nothing can compare with Chambers's Encyclopædia."
Glasgow News, October 29, 1908.

REVISED
TO
1908.

Apply to your Bookseller for Cash Prices

CHAMBERS'S ENCYCLOPÆDIA

A DICTIONARY OF UNIVERSAL KNOWLEDGE.

It is safe to assert that no set of books will prove more generally useful than the 1908 issue of this world-renowned work, which is a storehouse of information on every conceivable subject.

A Notable Letter to W. & R. Chambers, Ltd., from Professor Bonney, D.Sc., LL.D., F.R.S., University College, London.—"Professor Bonney takes the opportunity of expressing his sense of the very great value of their Encyclopædia. Of several of the scientific articles he may presume to speak as an expert, and considers them excellent; but, as it happens, he has been able to put the Encyclopædia to a severe test, for he has to do much miscellaneous writing. When that began he purchased a copy of the book, having already made occasional use of it at his club, and can truly say that he has hardly ever opened it without finding, in a clear, concise, and exact form, just the information of which he was in search. **"It is a model Encyclopædia."**

339 High St., Edinburgh. W. & R. CHAMBERS, Ltd. 38 Soho Square, London, W.

GILDERSLEEVE-LODGE LATIN SERIES.

General Editors : Professor BASIL L. GILDERSLEEVE, Johns Hopkins University, and Professor GONZALEZ LODGE, of Columbia University.

	S.	D.
Writing Latin—Book I. (*Based mainly on Cæsar*). By J. E. Barss	1	6
Writing Latin—Book II. (*Based on Cæsar and Cicero*)	2	6
Latin Composition. By Profs. Gildersleeve and Lodge	3	0
Cæsar's Gallic War—Books I.-VII. By Harry F. Towle and Paul R. Jenks	5	0
Cæsar's Gallic War—Book V. By Prof. Basil L. Gildersleeve	1	6
Eleven Orations of Cicero. By Robt. W. Tunstall	5	0
Selections from Ovid. By Jas. N. Anderson, M.A.	3	6
Selections from the Roman Elegiac Poets. By J. B. Carter	5	0
Livy—Books I., XXI., XXII. By Emory B. Lease	5	0
Cicero De Officiis—Book I. By Prof. Frank E. Rockwood	3	0
Cicero's Second Philippic. By Prof. E. G. Sihler	3	0
Juvenal's Satires. By Prof. H. L. Wilson	5	0
Cæsar's Civil War. By Prof. B. Perrin	3	6
Sallust's Catiline. By Prof. D. A. Penick	2	6

GEORGE G. HARRAP & CO.,
15 York Street, Covent Garden, London, W.C.

Sixth Edition, in Demy 8vo, **15s.** cloth.

ENGLISH CONSTITUTIONAL HISTORY.

From the Teutonic Invasion to the Present Time.
Designed as a Text-book for Students and others.

By T. P. TASWELL-LANGMEAD, B.C.L. Barrister-at-Law,
And late Professor of Constitutional Law and History, University College, London.

Sixth Edition, Revised throughout, with Notes.

By PHILIP A. ASHWORTH, Barrister-at-Law,
Translator of "*Gneist's History of the English Constitution.*"

"The work will continue to hold the field as the best class-book on the subject."
—*Contemporary Review.*

Fourth Edition, in 8vo, enlarged, price **6s.** cloth.

Leading Cases in Constitutional Law

Briefly stated, with Introduction and Notes.

By ERNEST C. THOMAS,
Bacon Scholar of the Hon. Society of Gray's Inn, late Scholar of Trinity College, Oxford.

Fourth Edition by C. L. ATTENBOROUGH, Barrister-at-Law.

In 8vo, price **5s.** cloth.

Theories and Criticisms of Sir Henry Maine.

By MORGAN O. EVANS, Barrister-at-Law.

Contained in his six works, "Ancient Law," "Early Law and Custom," "Early History of Institutions," "Village Communities," "International Law," and "Popular Government," which works have to be studied for the various examinations.

London: STEVENS & HAYNES, 13 Bell Yard, Temple Yard, W.C

By T. K. MONRO, M.A., M.D.,

Fellow of, and Examiner to, the Faculty of Physicians and Surgeons, Glasgow; Physician to the Glasgow Royal Infirmary; Professor of Medicine in St. Mungo's College; formerly Examiner in Glasgow University.

Raynaud's Disease (local syncope, local asphyxia, symmetrical gangrene): its history, causes, symptoms, morbid relations, pathology, and treatment. *Crown 8vo. 5s. net.*

"Dr. Monro deserves our very best thanks for his book."—Mr. Jonathan Hutchinson in *The Polyclinic.*

"Eine sehr vollständige und gründliche Monographie."—Prof. Eulenburg in *Deut. Med. Woch.*

"Une étude tres complete et tres au courant . . . une des plus importantes et des plus completes que l'on ait publié sur cette affection."—*Le Progrès Médical.*

"Excellent monograph."—Prof. Osler in *Johns Hopkins Hosp. Bull.*

"Dr. Monro . . . has done very carefully and elaborately what he set out to accomplish."—*Brit. Med. Jour.*

"An excellent resume."—*The Lancet.*

JAMES MACLEHOSE & SONS, GLASGOW.

A History of the Chronic Degenerative Diseases of the Central Nervous System. *Royal 8vo.*

"The author has certainly executed his task with success."—*British Medical Journal.*

"We can commend the book to the student of medical history."—*The Lancet.*

"An exhaustive and most interesting account."—*West London Medical Journal.*

"A splendid record of patient investigation and brilliant discovery."—*Liverpool Med. Chir. Journal.*

ALEX. MACDOUGALL, 68 MITCHELL STREET, GLASGOW.

Gratis and Post free to all parts of the World.

E. & F. N. SPON'S CATALOGUE OF BOOKS.

RELATING TO ARCHITECTURE AND BUILDING, CIVIL AND MECHANICAL ENGINEERING, ELECTRICITY, ELECTRIC TELEGRAPH, ELECTRIC LIGHT, MINING, SANITATION, ARTS, TRADES, AND MANUFACTURES.

London: E. & F. N. SPON, Limited, 57 Haymarket.

ST. GEORGE'S TRAINING COLLEGE FCR WOMEN TEACHERS IN INTERMEDIATE AND SECONDARY SCHOOLS, EDINBURGH.

THE College provides a Course of Professional Training for well-educated women who are preparing to become Teachers. The Course extends over a period of Three Terms (October to July).

The College is under the supervision of the Edinburgh Provincial Committee for the Training of Teachers, and is recognised by the Scotch Education Department, and by the Teachers' Training Syndicate of the University of Cambridge.

Two Bursaries of £30 are offered to Students entering in October, 1909.

Prospectus and further particulars from the Principal, Miss M. R. WALKER,
5 MELVILLE STREET, EDINBURGH.

R. F. MUIRHEAD, D.Sc., M.A. (Glasgow), B.A. (Cambridge),

Gives Tuition in

MATHEMATICS, PHYSICS and ENGINEERING

Beginning 16th August.

During the coming WINTER SESSION DR. MUIRHEAD will conduct an **Extra-Academical Class in Mathematics,** recognised by the University Court as qualifying so far for Graduation in the Faculty of Science.

ADDRESS:—64 GREAT GEORGE STREET, HILLHEAD.

ALL UNIVERSITY PRELIMINARIES;

Also M.A., B.Sc., and FIRST PROFESSIONAL. CLASSES conducted at 141 BATH STREET, by

MR. JAMES FINLAYSON, M.A.,

(Honours in Mathematics and Natural Philosophy).

CLASSES RESUME ON MONDAY, 2nd AUGUST.

Faculty of Physicians & Surgeons of Glasgow.

EXAMINATIONS FOR THE FELLOWSHIP

AND ALSO

FOR THE SURGICAL LICENCE OF THE FACULTY

ARE HELD AT STATED QUARTERLY PERIODS IN JANUARY, APRIL, JULY, & OCTOBER.

Examinations for the Triple Qualification and for the Conjoint Diploma in Public Health are held in Glasgow and Edinburgh at stated periods.

Copies of the Regulations relating to the Licence, the Fellowship, he Triple Qualification, the Conjoint Diploma in Public Health, and he Licence in Dental Surgery may be had on application.

ALEXANDER DUNCAN, B.A., LL.D.,
Secretary.

acULTY HALL,
242 ST. VINCENT STREET,
GLASGOW, *Jun* [illegible]

THE GLASGOW SCHOOL OF ART,

167 RENFREW STREET.

Head Master—FRA. H. NEWBERY, A. Int. Soc. S.P.G.

THIS School has been recognised by the Scotch Education Department as the Central Institution for Glasgow and the West of Scotland for Higher Education in Art. The overnors are authorised by the Scotch Education Department to grant Diplomas and ertificates to Students attending the School. The Diplomas will carry the Seal of the cotch Office, and that Department will accept the Diplomas of the Glasgow School of Art s testimonials of professional capability.

The Governors have been authorised by the Scotch Education Department to afford acilities for the instruction and training of selected Students, who are prepared to pursue he special subject of Art Teaching, as Art Masters and Art Mistresses.

The Work of the School is divided into Four Departments—

RAWING AND PAINTING. MODELLING.
RCHITECTURE. DESIGN & DECORATIVE ART.

Classes are held Daily Morning, Afternoon, and Evening.

Professor in the Life Classes—Maurice Greiffenhagen.
Professor in the Antique and Animal Painting Classes.—Paul Artot.
Professors of Architecture.—Eugene Bourdon, B.A., A.D.F.G. (Director), Alex. 'Gibbon, A.R.I.B.A.
Professor of Design and Decorative Art.—W. E. F. Britten.
Technical Studios with Appliances for Work in the Arts and Crafts.
Saturday Classes (10 to 1), all Subjects.

HE GLASGOW SCHOOL OF ART has been recognised by the Glasgow Provincial Committee a Centre for the further instruction of Teachers in Drawing under Article 55 of the Regulations for e Training and Certification of Teachers. 3rd Course and Post Certificate Classes Saturdays and hursdays. Prospectuses and all information to be had at the School, or post free on application.

JOHN M. GROUNDWATER, *Secretary.*

ANDERSON'S COLLEGE MEDICAL SCHOOL.

GLASGOW, W.

Situated within two minutes' walk of the Western Infirmary and four minutes' walk of the University.

THE WINTER SESSION WILL BE OPENED ON MONDAY, 11TH OCTOBER, 1909, AND THE SUMMER SESSION ON TUESDAY, 19TH APRIL, 1910.

WINTER SESSION.

Senior Anatomy	11 A.M. or as arranged.	Prof. A. M. Buchanan, M.A., M.D., and Demonstrators.
Junior Anatomy	1 P.M.	
Practical Anatomy,	9 A.M. till 6 P.M.	
Physics—Mon., Wed., Thur., and Fri.,	10 A.M.	Prof. Peter Bennett.
Chemistry	9 A.M.	Prof. J. Robertson Watson, M.A., and Assistants.
Chemical Laboratory	10 A.M. till 6 P.M.	
Botany	3 P.M. or as arranged.	Prof. B. G. Cormack, M.A., B.Sc.
Zoology	12 noon.	Prof. G. Bell Todd, M.B.
Physiology	12 A.M.	
Materia Medica and Therapeutics	1 P.M.	Prof. J. P. Duncan, B.Sc., M.B.
Medical Jurisprudence	Summer	
Midwifery	2 P.M.	Prof. John Edgar, M.A., B.Sc., M.B.
Surgery	12 noon.	Prof. G. H. Edington, M.D.
Practice of Medicine	1 P.M.	Prof. John Cowan, D.Sc., M.D.
Ophthalmic Medicine & Surgery Tues. and Thur.,	3 P.M. or as arranged.	T. Spence Meighan, M.D.
Public Health Laboratory	as arranged.	Carstairs Douglas, D.Sc., M.D.
Aural Surgery	Tues., 3 P.M.	James Galbraith Connal, M.B.
Laryngology	3 P.M.	John Macintyre, M.B., F.R.S.E.
Mental Diseases	Summer	John Carswell, L.R.C.P.E., F.F.P.S.G.

Malcolm Kerr Bursary in Anatomy, Value about £10. Open to Students of the Junior Anatomy Class during Session 1909-1910.

SUMMER SESSION.

Anatomy	11 A.M. or as arranged.	*Practical Physiology*	12 noon.
Osteology	1 P.M. or as arranged.	*Practical Pharmacy*	1 P.M.
Practical Anatomy	6 A.M. till 6 P.M.	*Medical Jurisprudence*	12 noon.
Practical Chemistry—		*Diseases of Women and Children*	2 P.M.
Demonstrations	11.10 A.M. and 3 P.M.	*Operative Surgery*	11 A.M. till 6 P.M.
Laboratory	9 A.M. till 6 P.M.	*Practice of Medicine*	8 A.M.
Botany	9 A.M.	*Ophthalmic Medicine and Surgery,*	Mon. and Wed., 11 A.M.
Practical Botany	10 A.M.	*Public Health Lectures*	as arranged.
Zoology	12 noon.	*Aural Surgery*	Tues., 3 P.M.
Practical Zoology	1 P.M. or as arranged.		

Mental Diseases—At the College, and the Mental Hospital, as may be arranged.

The Lectures at Anderson's College Medical School are recognized by the Universities of Glasgow and Edinburgh, etc., under certain conditions, which are stated in the Calendar. Fees for First Course of Lectures and for Practical Classes £2 2s. Fees for Second Course of Lectures in Anderson's College £1 1s. For fees in Anatomy and Public Health and other exceptions see Calendar. The benefits of the *Carnegie Trust* are extended to Students of Anderson's College.

A Calendar may be had from the Secretary to the Medical Faculty, Anderson's College Medical School, Glasgow, W.

The Scottish Tutorial and Educational Institute,

ASHFIELD HOUSE, 402 SAUCHIEHALL STREET, GLASGOW,
(National Telephone: No. 844 DOUGLAS)
AND
25 NORTH BRIDGE, EDINBURGH.

Principals—

J. GORDON LAING, M.A. (Hons.), Aberdeen; M.A. (Hons.), Edinburgh;
First-Class Honours in Classics (Latin and Greek).

GEORGE W. JONES, M.A. (Hons.), B.Sc., LL.B., Edinburgh; F.R.S.E.;
First-Class Honours in Mathematics and Natural Philosophy.

Special Preparation (Class and Private, Day and Evening) for University Preliminary and Degree Examinations.

MESSRS. LAING AND JONES who, since the foundation of the Tutorial and Educational Institute eight years ago at 25 North Bridge, Edinburgh, have made for themselves a unique position as Tutors for University Examinations, beg respectfully to state that, encouraged by their success in Edinburgh, they in 1907 opened a centre in Glasgow, where they have been enthusiastically welcomed, their Classes being already widely recognised as the best for University Examinations. This is all the more gratifying as the high character of the work in Edinburgh is being honourably maintained.

At all recent Preliminary and Degree Examinations the number of Passes obtained by the Institute at Edinburgh University has exceeded that obtained by any other Tutorial Institution. At the Graduation Ceremonials, April 1908 and April 1909, nearly one-third of the total number of ordinary Graduates in Arts had been Students of the Institute. Last year, at Edinburgh University, no fewer than 12 Medals or First Places were gained by former students of the Institute.

At Glasgow March-April 1909 Preliminary Examinations, the Institute had a high percentage of Passes—including records of 100 per cent.

Five Vans Dunlop Scholars have been students of the Institute.

The success of the Institute has been especially marked in the preparation of students for their Degree Examinations.

Carefully organised Classes are conducted for:—

(*a*) **Medical Preliminary.**
(*b*) **Arts, Science, and Law Preliminaries.**
(*c*) **M.A. and B.Sc. Degree Examinations in Mathematics, Natural Philosophy, Latin, Greek, French, Logic, and other subjects if desired.**
(*d*) **Physics and Chemistry for First Professional in Medicine.**
(*e*) **Advanced Dynamics and Mathematics for Engineering and Honours Students.**

Private Tuition may be had also for Bursary Competitions for Oxford, Cambridge, London, and other Universities; also for Army, Navy, and Indian Civil Examinations.

The Principals, who personally conduct the work of both Centres, are assisted by a large staff of Honours Graduates and Expert Teachers.

PROSPECTUS ON APPLICATION.

References to University Professors.

SKERRY'S COLLEGE

Established 1878

The Tutorial Institution of Scotland

SINCE its inception thirty-one years ago, the College has exerted a gradually growing influence throughout the length and breadth of Scotland by its remarkable success in the preparation of Students for Examinations. Many thousands have passed through its Day and Evening Classes, and there is not a parish from Shetland to Solway to which the Penny Post has not carried its **COURSES OF SPECIAL INSTRUCTION.**

The Success-Record for Three Years in University Preliminary and Degree Examinations

478 PASSES IN 1906.
607 PASSES IN 1907.
659 PASSES IN 1908.

More than those of all other Tutorial Institutions combined.

Detailed Prospectus Post Free from
THE SECRETARY, 13 BATH STREET, GLASGOW.

F
Univ Cal
G

THE

GLASGOW UNIVERSITY CALENDAR

FOR THE YEAR

1909-10

GLASGOW
JAMES MACLEHOSE AND SONS, 61 ST. VINCENT ST.
Publishers and Booksellers to the University
1909

UNIVERSITY·PRESS
ROBERT·MACLEHOSE
JAMES·J·MACLEHOSE
VIA·VERITAS·VITA
GLASGOW
FLOREAT GLASGVA PRÆDICATIONE EVANGELII

CONTENTS.

PAGE

Calendar, ... 9

University Officers, ... 19

I. THE UNIVERSITY, ... 29
- University Buildings, ... 31
- Government of the University, ... 33
- Chancellor, ... 35
- Rector, ... 35
- Dean of Faculties, ... 37
- Principal, ... 38
- University Court, ... 39
- Senatus Academicus, ... 43
- Faculties, ... 43
- Lecturers, ... 44
- Boards of Studies, ... 44
- University Assistants or Demonstrators, . . 45
- Examiners for Degrees, ... 46
- General Council, ... 46
- Students' Representative Council, ... 48
- Students, ... 50
- University Chapel, ... 52
- Gymnasium, ... 52
- External Examinations and Appointments, . . . 54

II.—TABLE OF UNIVERSITY FEES, ... 58

III.—SEPARATE FACULTIES AND CLASSES, . . . 60

1.—Faculty of Arts, ... 71

A. Language and Literature, ... 71
- Humanity, ... 71
- Greek, ... 73
- English Language and Literature, ... 75
- French, ... 76
- German, ... 78
- Italian, ... 79

PAGE
Hebrew and Semitic Languages, ... 80
Celtic, ... 80
B. Mental Philosophy, ... 82
Logic and Rhetoric, ... 82
Experimental Psychology, ... 83
Moral Philosophy, ... 83
Political Philosophy, ... 84
Political Economy, ... 85
Social Economics, ... 86
Education, ... 86
C. Science, ... 87
Mathematics, ... 87
Natural Philosophy, ... 88
Physics, ... 91
Astronomy, ... 92
Chemistry, ... 92
Zoology, ... 92
Botany, ... 92
Geology, ... 92
Geography, ... 92
D. History and Law, ... 93
History, ... 93
Constitutional Law and History, ... 94
Roman Law, ... 94

2.—FACULTY OF SCIENCE, ... 94
Mathematics, ... 94
Natural Philosophy, ... 94
Astronomy, ... 94
Chemistry, ... 96
Organic Chemistry, ... 96
Metallurgical Chemistry, ... 97
Physical Chemistry, ... 98
Geology, ... 99
Zoology, ... 100
Botany, ... 100
Anatomy, ... 101
Physiology, ... 101
Civil Engineering and Mechanics, ... 101
Electrical Engineering, ... 104

PAGE
Mining, ... 106
Naval Architecture, including Marine Engineering, . 108
Public Health, ... 108

3. FACULTY OF MEDICINE, ... 109
Order of Study, ... 109
A. Botany, ... 110
Zoology, ... 111
Physics, . . . 112
Chemistry, . . 112
B. Anatomy, . . 115
Embryology, . 116
Applied Anatomy, . 117
Physiology, . . 117
Materia Medica, . 120
C. Pathology, ... 121
Forensic Medicine, . 123
Public Health, ... 124
D. Surgery, . . . 126
Clinical Surgery, . 126
Practice of Medicine, 127
Clinical Medicine, . 128
Midwifery, . . 129
E. Insanity, ... 130
Ophthalmology, . . . 130
Fevers, ... 130
F. Diseases of the Ear, . . . 131
Diseases of the Throat and Nose, . . 131
Diseases of the Skin, ... 132
Diseases of Children, ... 133

4.—FACULTY OF LAW, ... 133
Law, ... 136
Conveyancing, . . . 137
Forensic Medicine, ... 138
Political Economy, ... 139
Civil Law, ... 139
Constitutional Law and History, ... 140
General or Comparative Jurisprudence, ... 141
Public International Law, ... 141
International Private Law, ... 142

PAGE
Mercantile Law, ... 143
Evidence and Procedure, ... 144
5.—Faculty of Theology, ... 144
Order of Study, ... 144
Divinity, ... 149
Hebrew and Semitic Languages, ... 151
Arabic, ... 152
Ecclesiastical History, ... 153
Divinity and Biblical Criticism, ... 156
IV.—ENDOWED DEMONSTRATORSHIPS, Etc., . . . 157
Arnott and Thomson Demonstratorship in Experimental Physics, ... 157
Muirhead Demonstratorship of Physiology, ... 158
Grieve Lectureship on Physiological Chemistry, . . 159
William Baxter Demonstratorship in Geology, . . 160
Waltonian Medical Lectureship, ... 161
Gifford Lectureship on Natural Theology, . . . 162
Alexander Robertson Lectureship, ... 163
Graham Young Lectureship on Metallurgical Chemistry, 165
The Hastie Lectureship, ... 165
V.—WOMEN'S DEPARTMENT, ... 166
VI.—SPECIAL STUDY AND RESEARCH, ... 171
VII.—CARNEGIE TRUST, ... 175
VIII.—LIBRARIES, MUSEUM, BOTANIC GARDEN, . 192
University Library, ... 192
Catalogues, ... 198
Reading Room, ... 198
Donations, ... 199
Divinity Hall Library, ... 205
Hunterian Museum, ... 205
Botanic Garden, ... 207
Marine Biological Station at Millport, ... 208
IX.—GRADUATION IN THE SEVERAL FACULTIES, 209
Examiners, ... 209
Regulations for Granting Degrees, ... 212
1.—Graduation in Arts, ... 212
Preliminary Examination in Arts, Science, and Medicine, 212

PAGE
Degree of Master of Arts, ... 220
Subjects of Examination for M.A., ... 229
Tables of Examinations for M.A., ... 246

2.—GRADUATION IN SCIENCE, ... 250
Degrees in Pure Science, ... 250
Table of Examinations for B.Sc. in Pure Science, . . 258
Degrees in Science in Engineering, ... 259
Table of Examinations for B.Sc. in Engineering, . . 265
Certificate of Proficiency in Engineering Science, . 266
Degrees in Science in Agriculture, ... 267
Table of Examinations for B.Sc. in Agriculture, . . 271
Degrees in Science in Public Health, ... 272
Table of Examinations for B.Sc. in Public Health, 275
Degree in Science in Pharmacy, ... 276
Diploma in Education, ... 279

3.—HIGHER DEGREES IN ARTS AND SCIENCE, . . 280

4.—GRADUATION IN MEDICINE AND SURGERY, . . 284
Table of Examinations for Degrees in Medicine, . 302

5.—GRADUATION IN LAW, ... 303
Table of Examinations for Degrees in Law, . . . 308

6.—GRADUATION IN DIVINITY, ... 309
Bachelor of Divinity, ... 309
Table of Examinations for B.D., . . . 314

7.—HONORARY DEGREES, ... 315
ACADEMIC DRESS, ... 316

X.—MEMOIRS, PAPERS, ETC., ... 318

XI.—BURSARIES, SCHOLARSHIPS, ETC., PRIZES, . 337

1.—BURSARIES—
A. Bursaries arranged according to Faculties, . . 341
B. Bursaries alphabetically arranged, ... 345

2.—EXHIBITIONS, FELLOWSHIPS, AND SCHOLARSHIPS, . . 418

3.—PRIZES, ... 446

4.—LIST OF BURSARIES, ETC., OPEN TO COMPETITION DURING SESSION 1909-10, ... 464

5.—PATRONAGE BURSARIES, 1909-10, ... 478

6.—UNIVERSITY PRIZE ESSAYS FOR SESSION 1909-10, . . 479

PAGE
XII.—HONOURS LIST, 1827-1909, ... 480

XIII.—DEGREE AND PRIZE LIST, Session 1908-1909, . 518

XIV.—EXAMINATION QUESTIONS, ... 567
1.—For Preliminary Examinations in Arts and Science and for Open Bursaries, . . 567
2.—For Degree of M.A., ... 596
3.—For Degree of B.Sc., ... 682
4.—For Diploma in Education, ... 725
5.—For Degrees in Medicine and Surgery :—
(1) Preliminary Examination, ... 730
(2) Professional Examinations, ... 737
6.—For Degrees of LL.B. and B.L., . . . 743
7.—For Degree of B.D., ... 754

XV.—VACATION EXERCISES, Etc., 1909-10, . . 768

XVI.—FINANCIAL STATEMENT FOR THE YEAR 1907-1908, ... 770

XVII.—GLASGOW PROVINCIAL COMMITTEE FOR THE TRAINING OF TEACHERS, . . . 775

XVIII.—EXTRA-ACADEMICAL TEACHING, . . . 777

XIX.—UNIVERSITY SOCIETIES. 787

General Index, ... 805

AUGUST 1909.

1	S	
2	M	
3	Tu	
4	W	
5	Th	
6	F	
7	S	
8	S	
9	M	
10	Tu	Names of Candidates for Highland Society's Bursaries to be given in as directed at pp. 473, 474.
11	W	
12	Th	
13	F	
14	S	Names of Candidates for Bursaries in the gift of the Merchants' House, for Hutchesons' Educational Trust Bursaries, for Glasgow City Educational Endowments Bursaries, for James Laing Bursaries, for Marshall Trust Bursaries, for Platt Bursaries, for William Whyte Bursary, and for Hannay Bursary to be given in as directed at pp. 474, 475.
15	S	
16	M	
17	Tu	
18	W	
19	Th	
20	F	
21	S	
22	S	
23	M	
24	Tu	Names of Candidates for Preliminary Examinations in Arts, Science, and Medicine, and Names of Competitors for Bursaries, to be given in to Assistant-Clerk (Matriculation Office).
25	W	
26	Th	
27	F	
28	S	
29	S	
30	M	
31	Tu	

SEPTEMBER 1909.

1	W	Names of Candidates for Ferguson Scholarships and for A. and B. Stewart Bursaries, to be given in before this day.
2	Th	
3	F	Names of Candidates for Degrees in Arts and Law, and for Scholarships, etc., to be given in to Assistant-Clerk (Matriculation Office).
4	S	
5	𝔖	
6	M	Names of Candidates for First, Second, and Third Professional Examinations in Medicine, for B.Sc. Examinations in Science, and for Certificate in Engineering Science, to be given in to Assistant-Clerk (Matriculation Office).
7	Tu	
8	W	
9	Th	Examination for Macdonald Bursary.
10	F	Preliminary and Bursary Examinations begin. (See pp. 217, 471.)
11	S	
12	𝔖	
13	M	
14	Tu	
15	W	
16	Th	
17	F	Preliminary Examinations end.
18	S	
19	𝔖	
20	M	
21	Tu	
22	W	General Bursary Competition ends.
23	Th	Meeting of Classical and Modern Languages Committees of Joint Board.
24	F	Meeting of Joint Board. Degree Examinations—Mathematics (Ord., Hr., Hon., Special Engineering), Italian.
25	S	Meeting of Joint Board. Degree Examinations—Astronomy, Education.
26	𝔖	
27	M	Names of Candidates for Degree of B.D. and for Bursaries, etc., in Theology, to be given in. Degree Examinations—Botany, Chemistry, Materia Medica, Public Health Laboratory.
28	Tu	Degree Examinations—Zoology, Physics, Anatomy, Physiology, Pathology, Public Health Laboratory, Vital Statistics, Sanitary Law.
29	W	Degree Examinations—Mathematics (Hon.), Constitutional Law, Civil (or Roman) Law, Hebrew, German (Hon.), English Literature (Hon.), History (Hon.), Astronomy, Engineering Laboratory, Electrical Engineering, Medicine in relation to Public Health, Practical Sanitation, Medical Jurisprudence and Public Health.
30	Th	Degree Examinations—History (Hon.), English Literature (Ord. and Hon.), Moral Philosophy (Ord. and Hon.), French (Hon.), Celtic, Engineering Drawing, Ship Drawing, Naval Architecture, Scots Law, Public International Law. Results of Preliminary Examinations issued.

OCTOBER 1909

1	F	Degree Examinations—Logic (Ord. and Hon.), Political Economy (Ord. and Hon.), Economic Science (Agric.), History (Hon.), English Literature (Hon.), Celtic, Latin and Greek (Hr. and Hon.), Engineering, Electrical Engineering, Jurisprudence, International Private Law.
2	S	Degree Examinations—Natural Philosophy (Ord., Hon., Special Engineering), Latin (Hr. and Hon.), Agriculture, Agricultural Entomology, Mining, Conveyancing, Mercantile Law.
3	S	
4	M	Degree Examinations—History (Ord. and Hon.), English Literature (Hon.), Latin (Hr. and Hon.), Natural Philosophy (Hon.), Mental Philosophy (Hon.), Engineering, Mining, Forensic Medicine.
5	Tu	Degree Examinations—Latin (Ord., Hr. and Hon.), British History (Hon. in Eng.), Geology, Metallurgy, Veterinary Hygiene.
6	W	Degree Examinations—French (Ord., Hr. and Hon.), Greek (Hon.), Geology, Practical Geology, Hebrew, Divinity, Biblical Criticism.
7	Th	Degree Examinations—French (Hr.), German (Ord. and Hon.), Greek (Hon.), Physical Laboratory, Mathematics (Pure and Applied), Apologetics, Church History, New Testament Exegesis, Hermeneutics. Results of General Bursary Competition declared. Meeting of University Court. Appointment of Committees and of Representatives at Charitable and other Boards.
8	F	Degree Examinations—Greek (Ord., Hr. and Hon.). Examinations for Bursaries in Theology. Matriculation and Enrolment in Classes begin.
9	S	Examinations for Bursaries in Theology.
10	S	
11	M	Classes open in Arts, Science, Medicine, and Divinity. Meeting of Standing Committee of University Council.
12	Tu	Classes open in Law.
13	W	
14	Th	Meeting of Senate—Election of Senate Members of Library and other Committees.
15	F	
16	S	
17	S	
18	M	
19	Tu	Applications for admission as Research Students to be lodged with the Clerk of Senate.
20	W	
21	Th	Close of Matriculation.
22	F	
23	S	
24	S	
25	M	
26	Tu	Close of Enrolment in Classes.
27	W	(Last Wednesday.) Meeting of General Council.
28	Th	
29	F	
30	S	Last day for giving in University Prize Essays.
31	S	

NOVEMBER 1909.

1	M	Names of Candidates for Diploma in Education to be given in to Assistant-Clerk (Matriculation Office).
2	Tu	
3	W	
4	Th	Meeting of Senate. Snell Examiners appointed. Representatives at Charitable and other Boards elected.
5	F	
6	S	
7	𝔖	
8	M	
9	Tu	
10	W	
11	Th	Meeting of University Court.
12	F	Examination for Diploma in Education.
13	S	
14	𝔖	
15	M	
16	Tu	
17	W	
18	Th	Meeting of Senate. Graduation.
19	F	
20	S	
21	𝔖	

NOVEMBER 1909

22	M	
23	Tu	
24	W	
25	Th	
26	F	
27	S	
28	**S**	
29	M	
30	Tu	

DECEMBER 1909

1	W	
2	Th	Meeting of Senate.—[illegible]
3	F	
4	S	
5	**S**	
6	M	
7	Tu	
8	W	
9	Th	Meeting of University Court.—Appointment of Directors of Samaritan Hospital, Director of Eye Infirmary, and Manager of Committee of West of Scotland Marine Biological Association.
10	F	
11	S	
12	**S**	
13	M	
14	Tu	
15	W	
16	Th	
17	F	Classes close in Arts, Science, Medicine, and Divinity.
18	S	Classes close in Law.
19	**S**	
20	M	Christmas Holidays commence.
21	Tu	
22	W	
23	Th	
24	F	
25	S	
26	**S**	
27	M	
28	Tu	
29	W	
30	Th	
31	F	

JANUARY 1910.

1	S	
2	𝕾	
3	M	
4	Tu	First day on which the Classes meet after the Christmas Holidays.
5	W	
6	Th	Meeting of Senate. Intimation from the several Faculties of the Election of Deans. Appointment of Principal and Deans Committee. Appointment of Boards of Studies. Report by Faculty of Arts on Logan Medal. Vacancies in Bursaries ascertained.
7	F	Applications for Higher Degrees in Arts and Science (D.Litt., D.Phil., and D.Sc.) to be sent in to Clerk of Senate.
8	S	
9	𝕾	
10	M	
11	Tu	
12	W	
13	Th	Meeting of University Court.
14	F	Close of Enrolment in Classes which begin after Christmas Holidays.
15	S	
16	𝕾	
17	M	
18	Tu	
19	W	
20	Th	
21	F	
22	S	
23	𝕾	
24	M	
25	Tu	
26	W	
27	Th	
28	F	
29	S	
30	𝕾	
31	M	Holiday (Monday after last Friday of January).

FEBRUARY 1910.

1	Tu	Holiday (For Candlemas).
2	W	Theses for M.D. to be sent in.
3	Th	Meeting of Senate. Reports of Committees on Honorary Degrees.
4	F	
5	S	
6	𝕾	
7	M	
8	Tu	
9	W	
10	Th	Meeting of University Court.
11	F	
12	S	
13	𝕾	
14	M	
15	Tu	
16	W	
17	Th	
18	F	
19	S	
20	𝕾	
21	M	
22	Tu	
23	W	Names of Candidates for Final Professional Examination in Medicine to be given in to Assistant-Clerk (Matriculation Office).
24	Th	Reports on Prize Essays.
25	F	
26	S	
27	𝕾	
28	M	Holiday (Monday after last Friday of February).

MARCH 1910.

1	Tu	
2	W	Names of Candidates for Preliminary Examinations in Arts, Science, and Medicine, to be given in to Assistant Clerk (Matriculation Office).
3	Th	Meeting of Senate.
4	F	Names of Candidates for Degrees in Arts (two-term subjects), and Law, and for Degree of B.D., to be given in to Assistant-Clerk (Matriculation Office).
5	S	
6	**S**	
7	M	Names of Candidates for First, Second, and Third Professional Examinations in Medicine, for B.Sc. Examinations in Science, and for Certificate in Engineering Science, to be given in to Assistant Clerk (Matriculation Office).
8	Tu	
9	W	
10	Th	Meeting of University Court.
11	F	
12	S	
13	**S**	
14	M	
15	Tu	
16	W	Meeting of Standing Committee on University Union.
17	Th	Meeting of Senate—Election of Commissioner to General Assembly. Nomination to 1851 Exhibition Research Scholarship. End of Second Term in Arts. End of Winter Session in Science, Medicine, Law, and Theology.
18	F	Report on College Buildings by the Master of Works. Degree Examinations—Mathematics (Ord., Hr., Hon., Special Engineering), Hebrew, Divinity, Textual Criticism, Practice of Medicine, Surgery.
19	S	Degree Examinations—Astronomy, Constitutional Law (Ord. and Hr.), Civil (or Roman) Law, Apologetics, Church History, New Testament Exegesis, Hermeneutics, Midwifery.
20	**S**	
21	M	Degree Examinations—Mathematics (Hon.), Engineering Laboratory, Electrical Engineering, Materia Medica, Zoology, Chemistry, Scots Law, Public International Law.
22	Tu	Degree Examinations—Astronomy, Engineering Drawing, Ship Drawing, Naval Architecture, Public Health Laboratory, Botany, Physics, Anatomy, Physiology, Pathology, Jurisprudence, International Private Law.
23	W	Degree Examinations—Hebrew (Ord. and Hr.), Engineering, Electrical Engineering, Mining, Public Health Laboratory, Vital Statistics, Sanitary Law, Medical Jurisprudence and Public Health, Conveyancing, Mercantile Law.
24	Th	Degree Examinations—Natural Philosophy (Ord., Hr., Hon., Special Engineering), Agriculture, Agricultural Entomology, Mining, Metallurgy, Medicine in relation to Public Health, Practical Sanitation, Forensic Medicine. Preliminary Examinations in Arts, Science, and Medicine begin. (See p. 217.)
25	F	Degree Examinations—Natural Philosophy (Hon.), Engineering, Mining, Veterinary Hygiene.
26	S	Degree Examinations—Geology, Practical Geology. Returns from Teachers of Elocution.
27	**S**	
28	M	Degree Examinations—Geology.
29	Tu	Degree Examinations—Physical Laboratory, Electricity (Pure and Applied).
30	W	
31	Th	

APRIL 1910.

1	F	Preliminary Examinations end.
2	S	
3	𝔖	
4	M	
5	Tu	
6	W	Last day for returning Books to the Library.
7	Th	Meeting of Classical and Modern Languages Committees of Joint Board.
8	F	Meeting of Joint Board.
9	S	Meeting of Joint Board.
10	𝔖	
11	M	
12	Tu	
13	W	
14	Th	Meeting of University Court. Results of Preliminary Examinations issued.
15	F	
16	S	
17	𝔖	
18	M	Meeting of Senate. Graduation. Distribution of University Prizes. Library re-opened.
19	Tu	Classes in Arts, Science, Medicine, and Law re-open.
20	W	
21	Th	
22	F	
23	S	
24	𝔖	
25	M	
26	Tu	
27	W	(Last Wednesday).—Meeting of General Council.
28	Th	Close of Matriculation and Enrolment in Classes.
29	F	
30	S	

MAY 1910.

1	S	
2	M	
3	Tu	
4	W	
5	Th	
6	F	Names of Candidates for Degrees in Arts to be given in to Assistant Clerk (Matriculation Office).
7	S	
8	S	
9	M	
10	Tu	
11	W	
12	Th	Meeting of University Court.
13	F	
14	S	
15	S	
16	M	
17	Tu	
18	W	
19	Th	
20	F	Classes in Arts close.
21	S	Degree Examinations—Education, Political Economy (Ord. and Hr.).
22	S	
23	M	Degree Examinations—English Literature (Ord. and Hr.). Holiday—Monday after Penult Friday of May.
24	Tu	Degree Examinations—Moral Philosophy (Ord. and Hr.).
25	W	Degree Examinations—Logic (Ord. and Hr.),
26	Th	Degree Examinations—History (Ord. and Hr.).
27	F	Degree Examinations—Latin (Ord. and Hr.).
28	S	Degree Examinations—Latin (Hr.).
29	S	
30	M	Degree Examinations—French (Ord. and Hr.).
31	Tu	Degree Examinations—French (Hr.), German (Ord. and Hr.).

JUNE 1910.

1	W	Degree Examinations—German (Ord. and Hr.). Theses for M.D. given in.[1] Names of Candidates for Examination for M.D. to be given in.
2	Th	Degree Examinations—Greek (Ord. and Hr.).
3	F	Degree Examinations—Greek (Hr.), Celtic (Ord. and Hr.).
4	S	Degree Examinations—Italian (Ord. and Hr.).
5	𝕾	
6	M	
7	Tu	
8	W	Meeting of University Court. Appointment of Lecturers, and of University Assistants.
9	Th	Names of Candidates for Diploma in Education to be given in to Assistant Clerk (Matriculation Office).
10	F	Meeting of Senate. Graduation in Arts. Distribution of Medals and Prizes in Arts.
11	S	
12	𝕾	
13	M	
14	Tu	
15	W	
16	Th	
17	F	
18	S	
19	𝕾	
20	M	
21	Tu	
22	W	
23	Th	
24	F	Examination for Diploma in Education.
25	S	
26	𝕾	
27	M	
28	Tu	Classes in Science, Medicine, and Law close.
29	W	Meeting of Senate.
30	Th	

JULY 1910.

1	F	
2	S	
3	𝕾	
4	M	
5	Tu	
6	W	
7	Th	Meeting of University Court. Appointment of Preliminary Examiners and Members of Joint Board for next year.
8	F	
9	S	
10	𝕾	
11	M	
12	Tu	
13	W	
14	Th	
15	F	
16	S	
17	𝕾	
18	M	
19	Tu	
20	W	
21	Th	
22	F	
23	S	
24	𝕾	
25	M	
26	Tu	
27	W	
28	Th	
29	F	
30	S	
31	𝕾	

---

[1] This is the last date in the year 1910 on which Theses for M.D. can be lodged.

UNIVERSITY OFFICERS.

	Elected.	Electors.
Chancellor—The Right Hon. Lord Rosebery, K.G., K.T., LL.D., - - -	1908	General Council.
Vice-Chancellor—Sir Donald MacAlister, K.C.B., M.A., M.D., D.C.L., LL.D., -	1908	Chancellor.
Rector—The Right Honourable Baron Curzon, G.C.S.I., G.C.I.E., - - -	1908	Matriculated Students.
Principal—Sir Donald MacAlister K.C.B., M.A., M.D., D.C.L., LL.D., - - -	1907	Crown.
Dean of Faculties—Sir James King, Bart., LL.D., - - - - - - -	1904	Senate.
Parliamentary Representative—Sir Henry Craik, K.C.B., LL.D., - - - -	1906	General Council.

University Court.

The Rector, *ex officio*. | The Principal, *ex officio*.
The Lord Provost of Glasgow, *ex officio*.

	Elected.	Electors.
William Lorimer, - - -	1908	Chancellor.
Sir John Ure Primrose, Bart.,	1908	Rector.
Alexander Murray, C.A., -	1906	Lord Provost, Magistrates and Town Council of Glasgow.
D. C. M'Vail, M.B., - -	1891	General Council.
David Murray, LL.D., -	1903	
John Hutchison, LL.D., -	1905	
John Smith, D.D., - -	1907	
Professor Stewart, D.D., -	1889	Senate.
Professor Jones, LL.D.,	1904	
Professor Gray, LL.D., -	1904	
Prof. Sir H. C. Cameron, M.D., -	1907	

Senatus Academicus.[1]

President, - - - The Principal, - - - - 1907

Professors

	Chairs.	Appointed
Henry Martyn Beckwith Reid, D.D.,	*Divinity*, - - -	1903
William Stewart, D.D., - - -	*Biblical Criticism*, -	1873
John Ferguson, M.A., LL.D., F.S.A., -	*Chemistry*, - -	1874
[2]John Cleland, M.D., LL.D., D.Sc., F.R.S.,	*Anatomy*, - -	1877
[2]William Jack, LL.D., D.Sc., - -	*Mathematics*, - -	1879

[1] See note at foot of next page.

[2] Professors Cleland and Jack will retire at 30th September, 1909.

Professors—*Continued.*	Chairs.	Appointed
Frederick O. Bower, Sc.D., F.R.S.,	*Botany,*	1885
Archibald Barr, D.Sc.,	*Civil Engineering and Mechanics,*	1889
James Moir, LL.D.,	*Conveyancing,*	1889
John Harvard Biles, LL.D.,	*Naval Architecture, including Marine Engineering,*	1891
Sir William Macewen, D.Sc. (Oxon.), LL.D., F.R.S.,	*Surgery,*	1892
Ludwig Becker, Ph.D.,	*Astronomy,*	1893
Murdoch Cameron, M.D.,	*Midwifery,*	1894
Henry Jones, LL.D., Litt.D., F.B.A.,	*Moral Philosophy,*	1894
William Smart, D.Phil., LL.D.,	*Political Economy,*	1896
Ralph Stockman, M.D.,	*Materia Medica,*	1897
John Glaister, M.D.,	*Forensic Medicine,*	1898
James Cooper, D.D., D.Litt.,	*Church History,*	1898
Robert Muir, M.A., M.D.,	*Pathology,*	1899
John S. Phillimore, M.A.,	*Humanity,*	1906[1]
Andrew Gray, LL.D., F.R.S.,	*Natural Philosophy,*	1899
Dudley J. Medley, M.A.,	*History,*	1899
Sir Hector C. Cameron, M.D.,	*Clinical Surgery,*	1900
Samson Gemmell, M.D.,	*Practice of Medicine,*	1908[2]
Robert Latta, M.A., D.Phil.,	*Logic and Rhetoric,*	1902
John Graham Kerr, M.A., F.R.S.,	*Zoology,*	1902
William Macneile Dixon, Litt.D.,	*English Language and Literature,*	1904
John Walter Gregory, D.Sc., F.R.S.,	*Geology,*	1904
William Murray Gloag, K.C., B.A.,	*Law,*	1905
Diarmid Noël Paton, M.D.,	*Physiology,*	1906
Gilbert Austin Davies, M.A.,	*Greek,*	1906
Charles Latham,	*Mining,*	1907
Wm. Barron Stevenson, B.D., D.Litt.,	*Hebrew and Semitic Languages,*	1907
—— ——	*Clinical Medicine,*	—

Deans of the several Faculties.

Arts,	Professor Medley.
Science,	Professor Gregory.
Medicine,	Professor Glaister.
Law,	Professor Smart.
Theology,	Professor Stewart.

Note.—"The precedency of the Masters in point of ceremony shall, in all time coming, be, that the Professor of Divinity take place first after the Principal, and that all the other Masters and Professors of whatever kind take place of other according to the seniority and time of their admissions into their respective offices."—*Statute of Royal Visitation, 1727.*

[1] Professor Phillimore occupied the Chair of Greek from 1899 till he was appointed to the Chair of Humanity in 1906.

[2] Professor Gemmell occupied the Chair of Clinical Medicine from 1900 till he was appointed to the Chair of Practice of Medicine in 1908.

Lecturers.

		Appointed
* Thomas H. Bryce, M.A., M.D.,	*Anatomy,*	1892
Wm. S. M'Kechnie, LL.B., D.Phil.,	*Constitutional Law and History,*	1894
Thomas Barr, M.D.,	*Diseases of the Ear,*	1895
J. Walker Downie, M.B.,	*Diseases of the Throat and Nose,*	1895
* A. M. Ramsay, M.D.,	*Diseases of the Eye,*	1895
* J. H. Pringle, F.R.C.S.,	*Surgery,*	1895
Charles Martin, M.A. (Paris), O.A.,	*French Language and Literature,*	1898
Robert A. Duff, M.A., D.Phil.,	*Political Philosophy,*	1901
Fernando Agnoletti, D.Litt.,	*Italian Language and Literature,*	1902
* Herbert W. Bolam, B.Sc., Ph.D.,	*Chemistry,*	1903
* Walter K. Hunter, D.Sc., M.D.,	*Practice of Medicine,*	1903
Frederick Soddy, M.A.,	*Physical Chemistry,*	1904
James A. M'Callum, LL.B.,	*General Jurisprudence,*	1904
A. H. Charteris, LL.B.,	*Public International Law,* *International Private Law,*	1904
Robert Lamond, LL.B.,	*Evidence and Procedure,*	1905
Edward P. Cathcart, M.D., D.Sc.,	*Physiological Chemistry* (Grieve Foundation),	1905
Landel R. Oswald, M.B., C.M.,	*Insanity,*	1905
George Henderson, Ph.D.,	*Celtic Language and Literature,*	1906
James F. Gemmill, M.A., M.D.,	*Embryology,*	1906
Robert Kennedy, M.D.,	*Applied Anatomy,*	1906
William Boyd, M.A., B.Sc.,	*Education,*	1907
Ritchie Girvan, M.A.,	*English Language,*	1907
Thomas G. Wright, LL.B.,	*Mercantile Law,*	1907
Herbert Smith, Ph.D.,	*German Language and Literature,*	1907
Thomas H. Weir, B.D.,	*Arabic,*	1907
Thomas S. Patterson, D.Sc., Ph.D.,	*Organic Chemistry,*	1907
Henry J. Watt, Ph.D.,	*Psychology,*	1907
A. A. Lawson, M.Sc., Ph.D.,	*Botany,*	1907
Thomas Jones, M.A.,	*Social Economics,*	1908
Carl H. Browning, M.D.,	*Bacteriology,*	1908
Cecil H. Desch, D.Sc., Ph.D.,	*Metallurgical Chemistry,*	1908
H. G. Lyons, F.R.S.,	*Geography,*	1909
William Dunbar, LL.B.	*Civil Law,*	1909
Andrew Miller, M.A.,	*Apologetics* (Alex. Robertson Foundation), 1908-9.	

* Lecturers at Queen Margaret College.

Lecturers for 1909-10.

		Date of First Appointment
Henry Bamford, M.Sc.,	*Engineering Drawing and Design,*	1901
Robert J. T. Bell, M.A., B.Sc.,	*Mathematics,*	1901
William Rennie, M.A.,	*Greek,*	1903
Robert G. Nisbet, M.A., Daniel Rankin, B.A.,	*Humanity,*	1904
William K. Hutton, M.A., M.B., C.M.,	*Regional Anatomy,*	1905
*John W. Scott, M.A.,	*Moral Philosophy,*	1905
John S. Nicholson, B.Sc.,	*Electrical Engineering,*	1906
James G. Gray, D.Sc.,	*Physics,*	1906
*Archibald A. Bowman, M.A.,	*Logic,*	1906
*John S. Smart, M.A.,	*English Language and Literature,*	1907
Neil M'Arthur, M.A., B.Sc.,	*Mathematics,*	1907
George E. Allan, D.Sc.,	*Electricity, Pure and Applied,*	1908
Robert A. Houstoun, D.Sc.,	*Physical Optics,*	1908
Steuart N. Miller, M.A.,	*Humanity,*	1909
J. M. F. Drummond, M.A.,	*Botany,*	1909
John M. Ramsay, M.A.,	*British History,*	1909

Boards of Studies.—1909.

In Arts. *Language and Literature.*—The Principal, the Dean of the Faculty of Arts, Professors Phillimore, Dixon, Davies, and Stevenson, Messrs. Martin, Smith, Nisbet, Rankin, Rennie, Weir, Agnoletti, Henderson, Smart, and Girvan.—Professor Phillimore, *Convener.*

Mental Philosophy.—The Principal, the Dean of the Faculty of Arts, Professors Jones, Smart, Davies, and Latta, Drs. R. A. Duff and Watt, and Messrs. Boyd, Scott, and Bowman.—Professor Jones, *Convener.*

Science.—The Principal, the Dean of the Faculty of Arts, Professors Ferguson, Jack, Bower, Becker, Gray, Kerr, and Gregory, Drs. Bolam, Lang, Lawson, Patterson, Desch, Watt, Houstoun, and Messrs. Soddy, Bell, and M'Arthur.—Professor Jack, *Convener.*

History and Law.—The Principal, the Dean of the Faculty of Arts, Professors Cooper and Dixon, Dr. M'Kechnie, and Messrs. Buchanan and Leys.—Professor Medley, *Convener.*

English (Language, Literature, and British History).—The Principal, the Dean of the Faculty of Arts, Professors Phillimore, Dixon, and Davies, Dr. M'Kechnie, and Messrs. Smart, Leys, and Girvan.—Professor Dixon, *Convener.*

---

* Lecturers at Queen Margaret College.

Economic Science.—The Principal, the Dean of the Faculty of Arts, Professors Jones and Smart, Drs. M‘Kechnie and Duff, and Messrs. Buchanan, M‘Callum, Leys, and Jones.—Professor Smart, *Convener.*

In Science.—Professors Ferguson, Cleland, Jack, Bower, Barr, Biles, Becker, Glaister, Gray, Kerr, Gregory, Paton, and Latham, Drs. Lang, Desch, Gemmill, Watt, Lawson, Bolam, Bryce, Patterson, Cathcart, Allan, and Kennedy, and Messrs. Bamford, Nicholson, Soddy, Bell, and M‘Arthur.—Professor Gregory, *Convener.*

In Medicine.—Professors Ferguson, Cleland, Bower, Sir William Macewen, Murdoch Cameron, Stockman, Glaister, Muir, Gray, Sir Hector C. Cameron, Gemmell, Kerr, and Paton, Drs. Thomas Barr, Downie, Oswald, Hutton, A. M. Ramsay, Bryce, Pringle, Maclennan, J. F. Gemmill, Bolam, Lang, Hunter, Cathcart, Patterson, Watt, Teacher, Browning, Kennedy, Lawson, and Gray.—The Dean of the Faculty of Medicine, *Convener.*

Official Adviser of Studies in Arts.

Robert A. Duff, M.A., D.Phil.

University Assistants or Demonstrators

Humanity,	Robert G. Nisbet, M.A. Daniel Rankin, B.A. Steuart N. Miller, M.A.
Greek,	William Rennie, M.A.
English Language and Literature,	John S. Smart, M.A. Robert Dewar, M.A. Janet Spens, M.A.
Hebrew,	D. Francis Roberts, B.A., B.D.
French,	Léon M. Pitoy, B.Sc., L. ès L.Phil.
German,	F. Broecker.
Logic,	Archibald A. Bowman, M.A. J. B. Payne, B.A.
Moral Philosophy,	John W. Scott, M.A. Hugh A. Reyburn, M.A.
Political Economy,	Thomas Jones, M.A.
Mathematics,	Robert J. T. Bell, M.A., B.Sc. Neil M‘Arthur, M.A., B.Sc. George D. C. Stokes, M.A., B.Sc.
Natural Philosophy,	James G. Gray, D.Sc. Robert A. Houstoun, M.A., D.Sc., Ph.D. George E. Allan, D.Sc. Alexander D. Ross, M.A., B.Sc. George Green, M.A., B.Sc.
Arnott and Thomson Demonstrator in *Experimental Physics,*	George E. Allan, D.Sc.
History,	John M. Ramsay, M.A.

Civil Engineering and Mechanics,	John S. Nicholson, B.Sc. Harry Bamford, M.Sc. Thos. B. Morley, B.Sc. Fred. R. Stewart, B.Sc. F. H. Downie, B.Sc. (*Young* Assistant). David Thomson, B. Sc. Robert M. Brown, B.Sc.
Naval Architecture,	R. G. A. Holmes, B.Sc.
Mining.	William H. M'Millan, B.Sc.
Geology,	G. W. Tyrrell, A.R.C.Sc.
Botany,	J. M. F. Drummond, M.A. R. C. Davie, M.A.
Zoology,	W. E. Agar, M.A., D.Sc. C. H. Martin, B.A.
Baxter Demonstr. in *Geology*,	David P. Macdonald, M.A., B.Sc.
Chemistry,	James Roberts, F.C.S. Andrew Henderson, M.A., B.Sc. Robert Scott, M.A. John M. Martin.
Anatomy,	William K. Hutton, M.A., M.B., C.M. Matthew Young, M.B., Ch.B.
Anatomy (at Queen Margaret College),	Agnes Picken, M.A., M.B.
Physiology,	Geo. H. Clark, M.B., Ch.B., D.P.H. Thos. G. Brown, B.Sc., M.B., Ch.B. (Muirhead Demonstrator).
Materia Medica.	Francis J. Charteris, M.D., Ch.B. A. Grey Banks, M.D., Ch.B.
Pathology,	J. Shaw Dunn, M.A., M.B., Ch.B John Cruickshank, M.B., Ch.B.
Forensic Medicine,	George A. Brown, M.B., C.M., D.P.H., B.Sc.
Surgery,	J. A. C. Macewen, B.Sc., M.B., C.M.
Clinical Surgery (Sir William Macewen),	J. A. C. Macewen, B.Sc., M.B., C.M. Spencer Mort, M.B., Ch.B. P. N. Robertson, M.B., Ch.B.
Clinical Surgery (Sir H. C. Cameron),	George H. Edington, M.D., C.M.
Practice of Medicine,	James C. M'Clure, M.B., C.M. Robert S. Fullarton, M.A., M.B., Ch.B. Leonard Findlay, M.D., Ch.B.
Midwifery,	Samuel J. Cameron, M.B., Ch.B. Archibald N. M'Lellan, M.B., C.M.
Diseases of the Ear,	J. Stoddart Barr, M.B., Ch.B.
Diseases of the Throat and Nose,	W. Walls Christie, M.D., C.M.
Conveyancing,	William Guy.

Examiners for Degrees.

In Divinity.—The Professors in the Faculty of Theology, assisted by the Rev. John Maclean, D.D., and the Rev. Professor James Orr, D.D.

In Law.—The Professors and Lecturers in the Faculty of Law, assisted by

R. Bruce Taylor, M.A.,	1907
A. A. Mitchell, LL.B.,	1908
T. Graham Robertson, LL.B.,	1908
Douglas A. Bannatyne, LL.B.,	1908

In Medicine.—The Professors and Lecturers in the Faculty of Medicine, as specified in Section XXIV. of Ordinance No. 14, and the following Additional Examiners:—

W. H. Thompson, M.D.,	1907	C. O. Hawthorne, M.D.,	1908
W. G. Ridewood, D.Sc.,	1907	James H. Nicoll, M.B.,	1908
J. R. Green, D.Sc., F.R.S.,	1908	John M. Thomson, LL.D., F.R.S.,	1908
Alfred H. Young, M.B., LL.D.,	1908	R. B. Wild, M.Sc., M.D.,	1909
James T. J. Morrison, M.A., M.Sc., M.B.,	1908	R. T. Hewlett, M.D.,	1909
Samuel Sloan, M.D.,	1908	Alex. Napier, M.D.,	1909
James Muir, M.A., D.Sc.,	1908	R. H. Parry, F.R.C.S.Ed.,	1909

In Arts.—The Professors and Lecturers in the Faculty of Arts, as specified in Section XIV. of Ordinance No. 13, assisted by the following Additional Examiners:—

W. G. Ridewood, D.Sc.,	Zoology,	1907
S. F. H. Mackay, M.A.,	Classics,	1907
W. A. Raleigh, M.A., LL.D.,	English,	1907
R. Bruce Taylor, M.A.,	Political Economy,	1907
Robert S. Rait, M.A.,	History,	1907
Hugh M'Callum, M.A.,	Education,	1907
W. W. M'Kechnie, M.A.,	French,	1907
W. P. Chalmers, M.A., Ph.D.,	German,	1907
Magnus Maclean, M.A., D.Sc.,	Celtic,	1907
J. R. Green, D.Sc., F.R.S.,	Botany,	1908
John Harvey, M.A.,	Classics,	1908
Ralph A. Sampson, M.A., D.Sc., F.R.S.,	Mathematics,	1908
James Muir, M.A., D.Sc.,	Natural Philosophy,	1908
John M. Thomson, LL.D., F.R.S.,	Chemistry,	1908
A. A. Mitchell, LL.B.,	Roman Law,	1908
T. Graham Robertson, LL.B.,	Constitutional Law & History,	1908
Thomas Loveday, M.A.,	Logic, Moral Philosophy,	1908
G. A. J. Cole,	Geology,	1909

In Science.—Professor Ferguson, LL.D., Professor Cleland, M.D., Professor Jack, LL.D., Professor Bower, Sc.D., Professor Barr, D.Sc., Professor Biles, LL.D., Professor Becker, Ph.D., Professor Gray, LL.D., Professor Kerr, M.A., Professor Gregory, D.Sc., Professor Paton, M.D., and additional examiners.

Preliminary Examiners in Arts, Science, and Medicine.—†Professor Jack, LL.D., Professor Phillimore, M.A., Professor Medley, M.A., Professor Dixon, Litt.D., Professor Davies, M.A., †W. K. Gillies, M.A., Robert J. T. Bell, M.A., B.Sc., William Rennie, M.A., Daniel Rankin, B.A., Charles Martin, M.A., †Herbert Smith, M.A., Ph.D., F. J. Amours, B.A., W. P. Chalmers, M.A., Ph.D., W. A. Lindsay, M.A., B.Sc., John Maclean, D.D., Ritchie Girvan, M.A., †John Morrison, M.A., D.D., Magnus Maclean, M.A., D.Sc.

Examiners for Diploma in Education.

William Boyd, M.A., B.Sc., and A. R. Andrew, M.A., LL.D., H.M.I.S.

Queen Margaret College.

Mistress, - - - -	Miss Melville, M.A.
Tutor in Arts, - - -	Miss Janet Spens, M.A.
Tutor in Science and Medicine,	Miss Agnes Picken, M.A., M.B., Ch.B.

Other Officials.

Secretary to the University Court, - - - -	Alan E. Clapperton, B.L., 91 West Regent Street.
Assistant to the Secretary of the University Court, - -	Robert Brough.
Clerk of Senate, - - -	Professor Stewart, D.D., 3 Annfield Road, Partickhill.
Assistants to the Clerk of Senate, - - - -	W. Innes Addison. Albert Morrison.
Registrar of the General Council, - - - -	W. Innes Addison, Matriculation Office.
Clerk of the General Council, -	Archibald Craig, LL.B., 149 West George Street.
Librarian and Keeper of Hunterian Books and MSS.	James L. Galbraith.
Sub-Librarian, - - -	Mungo Ferguson, M.A.
Assistant Librarians, - -	William G. Macdonald. Robert M. Burdon. Irving M. Morgan, M.A.
Honorary Curator of Zoological Collections, Hunterian Museum - - -	Professor Graham Kerr.
Honorary Curator of Geological Collections, Hunterian Museum, - - -	Professor Gregory.
Honorary Curator of Hunterian Coins, - - -	George Macdonald, LL.D.
Under-Keeper of Hunterian Museum, - - -	William Kinghorn.
Assistant Curator in Zoology,	Robert A. Staig.
Factors, - - - -	Hill & Hoggan, 194 Ingram Street.
Law-Agents, - - -	Mitchells, Johnston & Co., 160 West George Street.

† Members of the Joint Board.

Auditors,	Brown, Fleming & Murray, 163 West George Street.
Publishers and Booksellers to the University,	James MacLehose & Sons, 61 St. Vincent Street.
Printers to the University,	Robert MacLehose & Co. Ltd., Anniesland.
Organist,	A. M. Henderson, L.R.A.M.
Robe Makers to the University,	James Thomson & Son, 191 West George Street.
Master of Works,	John Stitt.
Bedellus,	William Finlayson.

Representatives of the University Court on Charitable and other Boards.

General Medical Council—Principal Sir Donald MacAlister, K.C.B., M.D., LL.D.

Western Infirmary—Sir Matthew Arthur, Bart., and Mr. David Johnston.

Victoria Infirmary—Dr. M'Vail and John Hutchison, LL.D.

Glasgow Eye Infirmary—Sir William Macewen, D.Sc. (Oxon.), M.D.

Royal Samaritan Hospital for Women—Henry E. Gordon, B.A

West of Scotland Agricultural College—Dr. M'Vail.

Highlands and Islands Educational Trust—H. P. Macmillan, LL.B., Advocate

Stirling Educational Trust—Mr. Charles King.

West of Scotland Biological Association—Prof. Graham Kerr, M.A.

Glasgow Provincial Committee for the Training of Teachers—Sir Donald MacAlister, K.C.B., Professors Bower and Latta, and John Hutchison, LL.D.

Glasgow Athenæum Commercial College—Mr. William Lorimer.

Pearce Institute, Govan—David Murray, LL.D., and Anthony S. Murray, M.A., B.L.

Wallace Hall Academy, Dumfries—Rev. J. H. Oswald, M.A.

Glasgow Veterinary College—Dr. M'Vail.

Representatives of the Senate on Educational and other Boards.

Glasgow and West of Scotland Technical College—The Principal and Professor Bower.

West of Scotland Agricultural College—Professor Gregory.

Glasgow City Educational Endowments Board—Professor Stewart.

Glasgow General Educational Endowments Board—Professors Stewart and Medley.

Glasgow School of Art—Professor Cleland.

Hutchesons' Educational Trust—The Principal.

John Clark (Mile-End) Bursary Trust—Professor Stewart.

Scott Scholarship and Bursaries Trust—Professors Phillimore and Dixon.

Western Infirmary—Professors Jones and Paton.

Royal Infirmary—Professor Murdoch Cameron.

Asylum for the Blind—Professor Murdoch Cameron.

Glasgow Convalescent Home—Professor Muir.
Baillie's Institution—Professor Ferguson.
Haldane Trust—Professor Phillimore.
Ministers' and Professors' Widows Fund—The Principal and Professor Gloag.
Glasgow Veterinary College—Professor Muir.

Joint Committees of Senate and Court.

LIBRARY COMMITTEE.—*Convener*, Professor Latta.

Appointed by the Senate—Professors Cooper, Phillimore, Gray Latta, Dixon, and Paton.

Appointed by the University Court—David Murray, LL.D., D. C. M'Vail, M.B., and John Hutchison, LL.D.

MUSEUMS COMMITTEE.—*Convener*, The Principal.

Appointed by the Senate—The Principal and Professors Cleland, Kerr, and Gregory.

Appointed by the University Court—David Murray, LL.D., and Sir John Ure Primrose, LL.D.

OBSERVATORY AND LABORATORIES COMMITTEE.—
Convener, Professor Gray.

Appointed by the Senate—Professors Ferguson, Becker, Stockman, and Gray.

Appointed by the University Court—Mr. William Lorimer and Mr. Alex. Murray.

The Carnegie Trust for the Universities of Scotland.

Trustee representing Glasgow University—Professor Stewart.

Committee on External Examinations and Appointments.

The Principal and Professors Jack, Bower, Barr, Biles, Jones, Smart, Glaister, Phillimore, Gray, Medley, Sir Hector C. Cameron, Latta, Latham, and Dr. R. A. Duff.—Professor Medley, *Convener and Secretary*.

Committee on the Training of Teachers.

The Principal (*Convener*), Professors Bower, Jones, Phillimore, Gray, Medley, and Latta.

Students' Representative Council.

Nov., 1908—Nov., 1909.

President—James B. Galbraith.
Vice-Presidents—John Mowat and Robert M. Mathams.
Secretary—James Hendry, M.A., The Union.
Treasurer—James M. Grier, M.A.
Conveners of Grand Committees—John MacLean, M.A. (Divinity); R. Perry Thomson, M.A. (Law); R. R. Archibald, M.A. (Medicine); David B. MacLay, (Science); R. S. S. Brown (Arts); Elizabeth R. Thomson, M.A. (Queen Margaret).
Conveners of Standing Committees—*Amusements*, John Cameron; *Lodgings*, Walter F. Todd, The Union; *Book and Gown Exchange*, John D. Milne; *Chapel*, R. M. Mathams.
Editor of Magazine—Osborne H. Mavor.

I.—THE UNIVERSITY.

The University of Glasgow is a corporate body, which has always included a Chancellor, Rector, Dean of Faculties, Principal, Professors, and Students. It was originally founded, like most other ancient establishments of the same nature, by the authority of the See of Rome. Pope Nicholas V., by a bull, dated the seventh of January, 1450-1, erects and establishes in Glasgow a "*Studium Generale . . . tam in theologia ac jure canonico et civili, quam in artibus, et quavis alia licita facultate.*" He then declares that this University shall have the same power of creating Masters and Doctors as any other "*studium generale*" in Christendom, and appoints the Bishop of Glasgow and his successors, Chancellors and Rectors by his authority. In the same year a body of statutes was prepared, and the University established by the exertions of the Bishop and his Chapter. It consisted, at this time, of the Chancellor and Rector, of various Masters and Doctors in the Faculties of Theology, Canon Law, and the Arts; and, lastly, of the incorporated students in these Faculties, who might be promoted to the same degrees in each, after following out the course of study prescribed in the statutes.

The University, at this time, had received no endowments, and was possessed of no property, except a University purse, into which were put some small perquisites on conferring degrees, and the patronage of two or three small chaplainries. It continued, however, to discharge its important functions with great zeal and activity, and attracted a greater number of members than could well have been expected in that rude period of society. The University Records contain little information as to lectures delivered in the Higher Faculties, or the number of the students who attended them. But we learn that within three or four years after the establishment of the University, so many young men were matriculated in the Faculty of Arts, that it was thought expedient to provide a house in which they might reside, and to secure a regular set of teachers for their instruction.

The house provided for the accommodation of the students in Arts was known by the name of Pædagogium, or the College of Arts. It is said to have been situated in the Rottenrow; but in the year 1460, James, Lord Hamilton, bequeathed to Mr. Duncan Bunch, principal Regent of the College of Arts, and his successors, Regents, for the use of the said College, a tenement in the High Street, with four acres of land adjoining. In buildings situated on this ground the classes of the University continued to meet for upwards of four hundred years.

The Reformation produced at first great disorder in the University, its members being clergymen of the Catholic persuasion, and its chief support being derived from the Church. In 1577, James VI. prescribed very particular rules with regard to the College and the form of its government, and made a considerable addition to its funds. The charter by which the king made these regulations, and gave that property, is known by the name of *Nova Erectio.*

By this charter, provision was made for the support of a Principal, who was to teach Theology and the Holy Scriptures, and was also Professor of Hebrew and Syriac, and three Regents, of whom one was to teach Greek and Rhetoric, another Dialectics, Morals, and Politics, with the Elements of Arithmetic and Geometry, and the third, who was also Sub-Principal, was to teach all the branches of Physiology and Geography, Chronology and Astrology. The Regents were to keep each by his own Profession, so that the student had a new Regent every year.[1]

From this small beginning, the University continued to prosper till the era of the Restoration, having at that time, besides the Principal, two Professors of Theology, one of Medicine, four Regents or Professors of Philosophy, and one of Humanity, a Librarian, with a tolerable Library, an increased number of Bursars and of other students of all ranks. At the Restoration, however, being deprived of a great part of its revenues in consequence of the re-establishment of Episcopacy, three of the Professorships fell into abeyance, and the College was again reduced to a Principal, a Professor of Theology, and four Regents. This state of matters continued till the Revolution, when the University again began to prosper after a long period of depression.[1] In the next thirty years seven Professorships were either originally founded or revived, viz.:—those of Mathematics (1691), Humanity (1706), Oriental Languages (1709), Civil Law (1712), Medicine (1712), Church History (1716), and Anatomy (1718); and to these a Professorship of Astronomy was added in 1760. The following eighteen Professorships were founded during the nineteenth century, viz.:—Natural History (1807), Surgery (1815), Midwifery (1815), Chemistry (1817), Botany (1818), Materia Medica (1831), Institutes of Medicine (1839), Forensic Medicine (1839), Civil Engineering (1840), Conveyancing (1861), English Language and Literature (1861), Divinity and Biblical Criticism (1861), Clinical Surgery (1874), Clinical Medicine (1874), Naval Architecture (1883), History (1893), Pathology (1893), Political Economy (1896). In 1903 the Chair of Geology was founded, and the Chair of Natural History became the Chair of Zoology. The Chair of Mining was founded in 1907.

---

[1] This system was altered in 1642, in accordance with the practice of the other Universities; but returned to after the Revolution. The four classes necessary to Graduation in Arts were called—the first, Bajan; the second, Semi; the third, Baccalour; the fourth, Magistrand.

UNIVERSITY BUILDINGS.

The changes in the City of Glasgow having so entirely altered the character of the district in which the University Buildings were planted in the fifteenth century as to render the locality altogether unsuitable for an Academic Institution; and the buildings themselves having become, by their limited extent and defective construction, inadequate for the modern requirements of a great educational establishment; measures were adopted for the removal of the University to more extended and commodious buildings, and for this purpose a large extent of ground was secured in the lands of Gilmorehill, in the western part of the City.

In 1846, a Bill for the sale of the College grounds and buildings to the Monklands Junction Railway Company, and the transference of the University to a new site on Woodlands, was passed by both Houses of Parliament, and received the Royal assent. But that measure failed by the inability of the Railway Company to implement their engagements; and the Senate of the University found no favourable opportunity for the renewal of the scheme, till the year 1863, when a proposal for the purchase of the College lands and buildings was made by the City of Glasgow Union Railway Company, and a sale was accordingly effected to that Company, under their Act of Parliament, in 1864, at the price of £100,000.

---

[1] See Dr. Thomas Reid's Account of the University of Glasgow

The funds at the disposal of the University to carry out the scheme of removal consisted of—(1.) The produce of the sale of the old College and grounds, £100,000,—(2.) A sum of £17,500, consisting of the principal sum of £10,000, obtained by the University as compensation from the Monklands Junction Company, for non-fulfilment of their agreement, with interest since the time of payment, and—(3.) A sum of £21,400, promised by her Majesty's Government in aid of the scheme of removal, conditionally on a further sum of £24,000 being raised by public subscription, for the erection of a sick hospital in connection with the new University Buildings.

With these funds at their disposal, buildings might have been erected sufficient for the transaction of the ordinary business of instruction in the same manner as heretofore, and for the accommodation of the Library and Museum, but they must have been of the plainest design, and on a scale quite inadequate to provide for the future extension of the University.

In these circumstances, the Senate resolved to make an earnest appeal for aid to the Government and to the public. This appeal was responded to in the most generous and gratifying manner. In a short time a sum of nearly £100,000 was subscribed, chiefly in the City of Glasgow; and the Government, appreciating the importance of the work, and the public interest it had excited, announced their intention to ask Parliament for the sum of £120,000, in six annual instalments. on condition of a like amount being raised by subscription and expended on the buildings. This sum was paid out of the National Treasury, and there has been received from the public subscription for the University Buildings and the Western Infirmary and from legacies and donations the large amount of £406,203, including £45,000 from the late Marquis of Bute for the erection of the Bute Hall, £5,000 from the late Dr. J. M'Intyre for the University Union Buildings, £5,000 from the Bellahouston Trustees for Medical Buildings in the Women's department, £4,274 from the late Sir William Pearce, Bart., for the removal of the old College front and the re-erection of the materials at the north-east gateway, £5,000 bequeathed by Mr. Andrew Cunninghame, and £1,000 (less legacy duty) bequeathed by Mr. James Marshall for the completion of the tower, and special subscriptions amounting to £2,600 for building and furnishing the Gymnasium. A sum of £30,000 was allocated to the Western Infirmary. New buildings, designed by the late Sir G. Gilbert Scott, were erected on the grounds of Gilmorehill; and in these buildings the classes of the University met for the first time in session 1870-71. In 1893 the buildings and grounds were extended by the gift of North Park House and Grounds for the use of the women students of the University. Extensive additions to the buildings at Gilmorehill have recently been made, including Engineering Lecture-rooms and Laboratory, Botany Class-rooms, Museum and Herbarium, and an extension of the Anatomical Department. The cost of these additions has been defrayed from the Randolph Bequest and from funds provided by the Bellahouston Trustees (£18,500), the Trustees of the late James B. Thomson (£13,727), and other benefactors. Two other groups of buildings were completed in 1907, funds having been provided by the Carnegie Trust (£60,500), and by the late Principal's University Equipment Scheme (£10,000). The one group is for the accommodation of Natural Philosophy, and the other for Physiology, Materia Medica, and Forensic Medicine. A temporary building has also been erected for increasing the accommodation of the Chemical Department, to which the Equipment Scheme contributed £10,000.

GOVERNMENT OF THE UNIVERSITY.

Previous to the Universities Act of 1858 the whole business of the University was transacted in three distinct courts—namely, the Senate, the Faculty, and the Comitia.

The *Senate* consisted of the Rector, the Dean, the Principal, and all the Professors of the University. Meetings of the Senate were held for conferring degrees, and for the management of the libraries and other matters belonging to the University.

The *Faculty*, or College Meeting, consisted of the Principal, who presided, and the Professors of Divinity, Church History, Oriental Languages, Natural Philosophy, Moral Philosophy, Mathematics, Logic, Greek, Humanity, Civil Law, Medicine, Anatomy and Practical Astronomy. The Members of Faculty had the administration of the whole revenue and property of the College, along with the right of exercising the patronage of eight professorships vested in the College. They also presented a Minister to the parish of Govan, and had the gift of various bursaries.

The Constituent Members of the *Comitia* were the Rector, the Dean, the Principal, the Professors, and the Matriculated Students of the University. The Rector or Vice-Rector presided in this Court, and also in the Senate. Meetings of the Comitia were held for the election and admission of the Rector, for hearing the inaugural discourses of the Principals and Professors previously to their admission to their respective offices, and for promulgating the laws of the University.

Besides these a court, called the *Jurisdictio Ordinaria*, consisting of the Principal, the four Regents (viz., the Professors of Greek, Logic, Ethics, and Physics), and the Professor of Humanity, with the gowned students, met occasionally, for the exercise of discipline over the junior students.

By the Scottish Universities Act, 21 and 22 Vict., chap. 83, important changes were made in the constitution and government of the University. The distinction between the Faculty and the Senate was abolished; two new bodies, called the University Court and University Council, were instituted; and Commissioners were appointed, armed with extensive powers of revision and regulation, who issued ordinances, sanctioned by Her Majesty, for the administration of the affairs of the University.

Further changes were made by the Universities (Scotland) Act, 1889. A Committee of Her Majesty's Privy Council was constituted, styled the Scottish Universities Committee of the Privy Council. An Executive Commission was created with power to repeal or modify any ordinance made under the Act of 1858. The Commissioners continued to exercise their powers till the end of 1897 and issued ordinances, *inter alia*, for Degrees in Arts, Science, Medicine, Law, and Divinity, for the instruction and graduation of Women, and for special study and research. They also issued an ordinance (No. 60) laying down regulations for the constitution of the Students' Representative Council, and regulations under which that Council is entitled to petition the Senatus Academicus and the University Court. After the expiration of the powers of the Commissioners the power of founding new professorships and making other ordinances according to a prescribed procedure devolved upon the University Court (see page 42).

CHANCELLOR

The Chancellor is the head of the University, and, by himself or his deputy, has the privilege of conferring Academical Degrees upon persons found qualified by the Senate. All changes in the internal arrangements of the University required, under the Act of 1858, the sanction of the Chancellor before being carried into effect. He is elected by the General Council, of which he is president. His office is held during life. He nominates an Assessor in the University Court, and he is empowered to appoint a Vice-Chancellor to discharge his office in his absence, so far as regards conferring Degrees, but in no other respect. The office of Vice-Chancellor has usually been, and is now, held by the Principal.

Chancellors from the year 1642.

1642.	James Hamilton, Marquis of Hamilton.
1660.	William Cunningham, Earl of Glencairn.
1661.	Andrew Fairfowl, Archbishop of Glasgow.
1664.	Alexander Burnett, ,, ,,
1670.	Robert Leighton, ,, ,,
1674.	Alexander Burnett, ,, ,,
1679.	Arthur Ross, ,, ,,
1684.	Alexander Cairncross, ,, ,,
1687.	John Paterson, ,, ,,
1692.	John Carmichael, Earl of Hyndford.
1714.	James Graham, Duke of Montrose.
1743.	William Graham, ,, ,,
1781.	James Graham, ,, ,,
1837.	James Graham, ,, ,,
1875.	Sir William Stirling-Maxwell, Bart., M.P.
1878.	Walter Francis, Duke of Buccleuch and Queensberry, K.G.
1884.	John Hamilton Dalrymple, Earl of Stair, K.T.
1904.	William Thomson, Baron Kelvin of Largs, G.C.V.O., O.M.
1908.	ARCHIBALD PHILIP PRIMROSE, EARL OF ROSEBERY, K.G., K.T., LL.D., F.R.S., D.C.L.

RECTOR.

The Rector is elected by the matriculated students of the University, divided into four nations.[1] In the case of an equality of nations the Chancellor had, in accordance with the Act of 1858, the casting vote, but under the Act of 1889 the Commissioners have ordained (Ord. No. 7) that the election shall be determined by the majority of votes of all the students voting whenever the votes of the nations shall be equally divided. The Universities Commission (1858) ordained that the election should take place upon the 15th November (the 16th, if the 15th fell on a Sunday); but by Ordinance No. 139 of the Universities Commission (1889), the election is to take place on such day in the month of October or November as may be fixed by the University Court after consultation with the Senate, but the date cannot be later than the second Saturday in November in any year. The term of office is three years. The Rector is the official President of the University Court.

---

[1] The nations are constituted as follows:—

1. The Natio Glottiana consists of all matriculated students born within the County of Lanark.

2. The Natio Transforthana consists of all matriculated students born within any of the Counties of Orkney and Shetland, Caithness, Sutherland, Ross, Inverness, Cromarty, Nairn, Moray, Banff, Aberdeen, Perth, Forfar, Kincardine, Clackmannan, Fife, Kinross, Argyle, Stirling, and Dumbarton.

3. The Natio Rothseiana consists of all matriculated students born within any of the Counties of Bute, Renfrew, and Ayr.

4. The Natio Loudoniana consists of all matriculated students not included in any of the other nations.

Rectors from 1773.

1773. Charles Cathcart, Lord Cathcart.
1775. Lord Chief Baron Montgomerie.
1777. Andrew Stewart, Esq. of Torrance.
1779. James Maitland, seventh Earl of Lauderdale.
1781. Right Hon. Henry Dundas.
1783. Right Hon. Edmund Burke.
1785. Robert Graham, Esq. of Gartmore.
1787. Adam Smith, LL.D.
1789. Walter Campbell, Esq. of Shawfield.
1791. Thomas Kennedy, Esq. of Dunure.
1793. William Mure, Esq. of Caldwell.
1795. William M'Dowall, Esq. of Garthland.
1797. George Oswald, Esq. of Auchincruive.
1799. Right Hon. Sir Ilay Campbell, Lord President.
1801. William Craig, a Lord of Session.
1803. Lord Chief Baron Dundas.
1805. Henry Glassford, Esq. of Dugalston.
1807. Archibald Colquhoun, Esq. of Killermont.
1809. Archibald Campbell, Esq. of Blythswood.
1811. Lord Archibald Hamilton.
1813. Thomas Graham, Lord Lynedoch.
1815. David Boyle, Lord Justice Clerk.
1817. George Boyle, Earl of Glasgow.
1819. Kirkman Finlay, Esq., M.P.
1820. Francis Jeffrey, Esq., Advocate.
1822. Sir James Mackintosh, M.P.
1824. Henry Brougham, Esq., M.P.
1826. Thomas Campbell, LL.D.
1829. Henry Petty, Marquis of Lansdowne.

1831. Henry Cockburn, Esq., Solicitor-General.
1834. Lord Stanley, M.P.
1836. Sir Robert Peel, Bart., M.P.
1838. Sir J. G. R. Graham, Bart., M.P.
1840. John Campbell, Marquis of Breadalbane.
1842. Right Hon. Fox Maule, M.P.
1844. Andrew Rutherford, Esq.
1846. Lord John Russell.
1847. Colonel Mure of Caldwell.
1848. Thomas Babington Macaulay, Esq.
1850. Archibald Alison, Esq., Sheriff of Lanarkshire.
1852. Earl of Eglinton.
1854. Duke of Argyle.
1856. Sir Edward Bulwer Lytton.
1859. Earl of Elgin.
1862. Viscount Palmerston.
1865. John Inglis, Lord Justice Clerk.
1868. Lord Stanley (afterwards Earl of Derby).
1871. Right Hon. Benjamin Disraeli, M.P. (Earl of Beaconsfield).
1877. Right Hon. William Ewart Gladstone, M.P.
1880. Right Hon. John Bright, M.P.
1883. Right Hon. Henry Fawcett, M.P.
1884. Edmund Law Lushington, LL.D., D.C.L.
1887. Right Hon. Earl of Lytton, G.C.B., G.C.S.I., C.I.E.
1890. Right Hon. Arthur James Balfour, M.P.
1893. Right Hon. Sir John Eldon Gorst, M.P.
1896. Right Hon. Joseph Chamberlain, M.P.
1899. Right Hon. Earl of Rosebery, K.G., D.C.L., LL.D.
1902. Right Hon. George Wyndham, M.P.
1905. Right Hon. Herbert H. Asquith, M.P.
1908. Right Hon. Baron Curzon, G.C.S.I., G.C.I.E., F.R.S.

DEAN OF FACULTIES.

From the beginning there has been in the University an officer of dignity with the title of Dean of Faculty or Dean of Faculties. The duties of the office, as originally constituted, were to exercise a superintendence over the studies, and, in conjunction with the Masters, to judge of the qualifications of applicants for degrees. From the year 1772 it was the duty of the Dean, in concert with the Rector and the Minister of Glasgow, to examine the accounts of the administration of the Revenue, and to give advice to the Principal and Professors when it was necessary for them to institute a judicial inquiry into the conduct of any of their number. By the Universities Act of 1858 the Dean of Faculties was a member of the University Court, but in the enumeration of the constituent members of the new University Court in the Act of 1889 the name does not occur. The election is made annually by the Senate at the close of the winter session.

Deans from the year 1800.

1800. James Couper, D.D.
1802. Archd. Campbell, Esq. of Succoth.
1804. Gavin Gibb, D.D.
1806. Duncan Macfarlan, D.D.
1808. Gavin Gibb, D.D.
1810. Duncan Macfarlan, D.D.
1812. Gavin Gibb, D.D.
1814. Stevenson Macgill, D.D.
1815. Archibald Campbell, Esq., M.P.
1817. Sir John Connel.
1819. Archibald Campbell, Esq., M.P.
1821. Sir John Connel.
1823. Archibald Campbell, Esq., M.P.
1825. Sir John Connel.
1827. Archibald Campbell, Esq., M.P.
1829. Sir John Connel.
1831. Archibald Campbell, Esq.
1833. Sir A. Campbell, Bart.
1835. Archibald Campbell, Esq.
1837. Sir A. Campbell, Bart.
1839. Kirkman Finlay, Esq.
1841. Lord Dunfermline.
1843. Sir T. Makdougall Brisbane, Bart.
1845. A. Maconochie, Lord Meadowbank.
1847. Earl of Eglinton.
1849. Colonel Mure of Caldwell, M.P.
1851. W. Lockhart, Esq., M.P.
1853. Colonel Mure.
1854. W. Lockhart, Esq.
1857. W. Stirling, Esq., of Keir, M.P.
1860. J. Moncreiff, Lord Advocate.
1863. Sir A. I. Campbell of Succoth.
1865. Henry Glassford Bell, Esq.
1868. Sir James Fergusson, Bart.
1869. Sir Thos. E. Colebrooke, Bart., M.P.
1872. Archd. Orr Ewing, Esq., M.P.
1876. Alexander B. M'Grigor, LL.D.
1879. James King, Esq.
1882. R. W. Cochran-Patrick, LL.D., M.P.
1885. Alexander Crum, Esq., M.P.
1888. Robert Berry, LL.D.
1896. W. P. Dickson, D.D., LL.D.
1901. The Rt. Hon. Lord Kelvin, G.C.V.O.
1904. Sir James King, Bart., LL.D.

PRINCIPAL.

The office of Principal or Principal Regent of the College was almost coeval with the foundation of the University, and was regulated anew by James VI., in 1577. It is in the appointment of the Crown. The Principal is President of the Senatus Academicus; and is also, *ex officio*, a member of the University Court.

Principals from the year 1574.

1574. Andrew Melville.
1580. Thomas Smeaton.
1586. Patrick Sharpe.
1615. Robert Boyd.
1622. John Cameron, D.D.
1626. John Strang, D.D.
1650. Robert Ramsay.
1653. Patrick Gillespie.
1661. Robert Baillie, D.D.
1662. Edward Wright.
1684. James Fall.
1690. William Dunlop.
1701. John Stirling.
1728. Neil Campbell.
1761. Wm. Leechman, D.D.
1786. Archd. Davidson, D.D.
1803. William Taylor, D.D.
1823. Duncan M'Farlan, D.D.
1858. Thomas Barclay, D.D.
1873. John Caird, D.D.
1898. Robert Herbert Story, D.D., LL.D.
1907. Sir Donald MacAlister, K.C.B., M.A., M.D., D.C.L., LL.D.

UNIVERSITY COURT.

The University Court consists of (*a*) the Rector, (*b*) the Principal, (*c*) the Lord Provost of Glasgow for the time being, (*d*) an Assessor nominated by the Chancellor, (*e*) an Assessor nominated by the Rector, (*f*) an Assessor nominated by the Lord Provost, Magistrates, and Town Council of Glasgow, (*g*) four Assessors elected by the General Council, (*h*) four Assessors elected by the Senatus Academicus. There is a further provision in the Act of 1889 for the representation of affiliated Colleges.

Assessors since the University Court was constituted.

CHANCELLOR.

1859. John Robertson, D.D., Glasgow.
1865. A. Sym, D.D., New Kilpatrick.
1870. James Pearson, D.D., Strathblane.
1874. Robert Jamieson, D.D., Glasgow.
1878. J. A. Campbell, LL.D., Stracathro.
1887. Sir James King, Bart., LL.D.
1904. Henry E. Gordon, B.A., of Aikenhead
1908. WILLIAM LORIMER, Esq.

RECTOR.

1860. Thomas Buchanan, Esq.
1863. Walter Buchanan, Esq., M.P.
1866. Archibald Orr Ewing, Esq.
1869. James A. Campbell, LL.D.
1878. Alexander Crum, Esq.
1880. Charles Cameron, M.D., LL.D., M.P.
1884. A. B. M'Grigor, LL.D.
1887. James Grahame, Esq.
1890. Lord Blythswood, LL.D.
1893. Matthew P. Fraser, LL.B.
1896. David Murray, LL.D.
1899. Alexander Ure, LL.B., M.P., Q.C.
1902. Allan F. Baird, Esq.
1905. William Lorimer, Esq.
1908. SIR JOHN URE PRIMROSE, BART., LL.D.

LORD PROVOST, MAGISTRATES, AND TOWN COUNCIL OF GLASGOW.

1889. James Colquhoun, LL.D.
1899. Robert M. Mitchell, Esq.
1906. ALEXANDER MURRAY, Esq.

GENERAL COUNCIL.

1859. Andrew Bannatyne, LL.D.
1864. Lord Kinloch.
1867. Anderson Kirkwood, LL.D.
1887. R. W. Cochran-Patrick, LL.D.
1889. David Hannay, Esq.

1889.	Hector C. Cameron, M.D.
1889.	Sir John Neilson Cuthbertson.
1891.	Rev. J. W. King, M.A., D.D.
1891.	D. C. M'Vail, M.B.
1893.	Hector C. Cameron, M.D.
1893.	Sir John Neilson Cuthbertson.
1895.	Rev. J. W. King, D.D.
1895.	D. C. M'Vail, M.B.
1897.	Hector C. Cameron, M.D.
1897.	Sir John Neilson Cuthbertson, LL.D.
1899.	D. C. M'Vail, M.B.
1899.	Sir James Bell, Bart.
1900.	William Robertson Copland, C.E.
1901.	Sir John Neilson Cuthbertson, LL.D.
1901.	William Robertson Copland, C.E.
1903.	D. C. M'Vail, M.B.
1903.	David Murray, LL.D.
1905.	John Hutchison, LL.D.
1905.	Sir William Robertson Copland, C.E., LL.D.
1905.	John Hutchison, LL.D.
1907.	John Smith, D.D.
1907.	D. C. M'Vail, M.B.
1907.	David Murray, LL.D.

SENATUS ACADEMICUS.

15th Nov., 1859.	Professor W. Ramsay, M.A.
11th Dec., 1863.	Professor R. Buchanan, LL.D.
12th Dec., 1867.	Professor Allen Thomson, M.D.
11th Jan., 1872.	Professor Sir W. Thomson.
13th Jan., 1876.	Professor Cowan, M.D.
29th Jan., 1880.	Professor Berry, M.A., LL.D.
31st Jan., 1884.	Professor Dickson, D.D., LL.D.
9th Feb., 1888.	Professor G. G. Ramsay, LL.D.
28th Nov., 1889.	Professor Leishman, M.D.
28th Nov., 1889.	Sheriff Berry, LL.D.
28th Nov., 1889.	Professor Stewart, D.D.
28th Nov., 1890.	Professor Ramsay, LL.D.
30th Nov., 1891.	Professor Leishman, M.D.
28th Nov., 1892.	Sheriff Berry, LL.D.
28th Nov., 1893.	Professor Stewart, D.D.
30th Nov., 1893.	Professor Gairdner, M.D., LL.D.
28th Nov., 1894.	Professor Jack, LL.D.
30th Nov., 1895.	Sir W. T. Gairdner, K.C.B., M.D., LL.D.
28th Nov., 1896.	Sheriff Berry, LL.D.
28th Nov., 1897.	Professor Stewart, D.D.
28th Nov., 1898.	Professor Adamson, LL.D.
30th Nov., 1899.	Professor Young, M.D.

28th Nov., 1900.	Professor Moir, LL.D.
28th Nov., 1901.	Professor Stewart, D.D.
6th Mar., 1902.	Professor Raleigh, M.A.
28th Nov., 1902.	Professor Raleigh, M.A.
15th Jan., 1903.	Professor Muir, M.A., M.D.
30th Nov., 1903.	Professor Muir, M.A., M.D.
13th Oct., 1904.	Professor Jones, LL.D., Litt.D., F.B.A.
28th Nov., 1904.	Professor Gray, LL.D.
28th Nov., 1905.	Professor Stewart, D.D.
28th Nov., 1906.	Professor Jones, LL.D., Litt.D., F.B.A.
30th Nov., 1907.	Professor Sir Hector C. Cameron, M.D.
28th Nov., 1908.	Professor Gray, LL.D.

The Rector's Assessor continues in office three years, and the other Assessors four years.

Under the Universities Act, 1858, the Court has power :

1. To review all decisions of the Senate, and to be a Court of Appeal from the Senatus, except as otherwise provided in the Universities Act.

2. To effect improvements in the internal arrangements of the University, after due communication with the Senate, and with the sanction of the Chancellor : provided that all such proposed improvements be submitted to the General Council for consideration.

3. To require due attention on the part of the Professors to the Regulations as to the mode of teaching and other duties imposed on the Professors.

4. To fix and regulate, from time to time, the fees in the several Classes.

5. Upon sufficient cause shown, and after due investigation, to censure any member of Senate, or to suspend him from office, and from the emoluments thereof, in whole or in part, for any period not exceeding one year, or to require him to retire on a retiring allowance, or to deprive him of office ; and during the suspension of any Professor, to make provision for the teaching of his class : provided always, that no such sentence of censure, deprivation, etc. shall have effect until approved by His Majesty in Council.

By Section 19 any of the Rules and Ordinances enacted by the Universities Commissioners under the Act, could be altered or revoked by the University Court of the University to which they are applicable, but only with the written consent of the Chancellor, and with the approval of His Majesty in Council.

By the Universities (Scotland) Act, 1889, the University Court is a body corporate with perpetual succession and a common seal ; and all the property belonging to the University at the passing of the Act is now vested in that body.

By the same Act, the University Court, in addition to the powers conferred upon it by the Act of 1858, has power :

1. To administer the whole revenue and property of the University, including share of annual Government Grant, and bursary and other mortifications.

2. To review any decision of the Senate, appealed against by a member of Senate or other member of the University interested,[1] and to receive representations and reports from the Senate and the General Council.

---

[1] An appeal against any decision of the Senate must be lodged with the Secretary of the University Court within fourteen days from the date of the issue of such decision. See Ordinance No. 5.

3. To review on representation by any member of the University Court or by any member of Senate, any decision of the Senate in the exercise of its powers of regulating and superintending the teaching and discipline of the University; but decisions in matters of discipline can be reviewed only on appeal by a member of Senate or by a member of the University directly affected.[1]

4. To appoint professors to chairs in University patronage; to appoint examiners and lecturers; and to recognise for graduation purposes the teaching of any college or individual teacher, under any regulations laid down by the Commissioners, which regulations, after the expiration of the powers of the Commissioners, may from time to time be modified or altered by the Universities Committee.

5. To define on application by any member of the Senate the nature and limits of a professor's duties under his commission, subject to appeal to the Universities Committee.[1]

6. To take proceedings against a principal or professor, University lecturer, assistant, recognised teacher or examiner, or any other person employed in teaching or examining.

7. To appoint from persons not being members of Senate one third of the members of any standing committee or committees charged, by ordinance of the Commissioners, with superintendence of University libraries or museums, and to review any decision of the Senate regarding the recommendations of such committee or committees.

8. To appoint committees of its own number, consisting of not less than five members, to report on any business entrusted to them or to carry out special instructions.

9. To elect the representative of the University on the General Medical Council, under the Medical Act, 1886.

10. After the expiration of the powers of the Commission to found new professorships with the approval of the Universities Committee.[2] After such expiration no new professorship shall be founded otherwise.

By Section 21 of the Act of 1889 the University Court has power to make new ordinances, with the approval of His Majesty in Council:

1. With respect to the appropriation of the sum allotted to the University by the Commissioners out of the annual grant.

2. Altering or revoking any of the ordinances affecting the University which have been or may be framed and passed under the Act of 1858 or the Act of 1889, and making new ordinances: provided that such ordinances, before being submitted to His Majesty for approval, have been communicated by the University Court to the Senate, the General Council, and the University Courts of the other Universities, and have been laid for twelve weeks before both Houses of Parliament.

The Court is entrusted with the patronage of several of the Professorships, appoints the additional Examiners for Degrees, and is a court of final appeal in any dispute which may arise in making up the Register of the General Council. Seven Members of the Court constitute a quorum. The Rector is President—in his absence, the Principal.

---

[1] Ordinance No. 144, which was issued on 29th March, 1895, and came into force immediately after the expiration of the powers of the Commissioners (1889), empowers the University Court at any time to revise and adjust the terms of the commission to be issued at the next vacancy of any chair, with regard to the number of lectures and the period of instruction.

[2] Ordinance No. 144 enjoins the University Court before proceeding to the foundation of any new Professorship, to ascertain that there are sufficient means for its endowment, and also to take into consideration the contingent claim which the Professor may have to a pension.

SENATUS ACADEMICUS.

The Senatus Academicus consists of the Principal and the whole of the Professors, and is entrusted with the regulation and superintendence of the teaching and discipline of the University. It appoints two-thirds of the members of any standing committee or committees charged by ordinance of the Commissioners with the immediate superintendence of University libraries or museums. It receives in the first instance all reports by such committee or committees, and, subject to the review of the University Court, it may confirm, modify, or reject the recommendations in such reports. The Senate continues to possess and exercise the powers possessed by it before the passing of the Act of 1889 so far as they are not modified or altered by that Act or by the Act of 1858. The Principal, as President, has a deliberative and a casting vote. One third of the Senate constitute a quorum.

FACULTIES.

The Universities Commissioners, by Ordinance No. 31, dated 5th June, 1893, as amended by the University Court Ordinances Nos. viii. and xix., settled the constitution of the several Faculties in this University, as follows:—I. The Faculty of Arts consists of the Professors of the following subjects, viz., English Language and Literature, Humanity, Greek, Hebrew and Semitic Languages, Mathematics, Natural Philosophy, Logic and Rhetoric, Moral Philosophy, History, Political Economy.[1] II. The Faculty of Science consists of the Professors of the following subjects, viz., Mathematics, Natural Philosophy, Astronomy, Chemistry, Zoology, Geology, Botany, Anatomy. Physiology, Civil Engineering and Mechanics, Naval Architecture, Mining. III. The Faculty of Medicine consists of the Professors of the following subjects, viz., Chemistry, Zoology, Botany, Anatomy, Physiology, Pathology, Materia Medica, Medicine, Surgery, Midwifery, Forensic Medicine, Clinical Medicine, Clinical Surgery.

---

[1] See Ordinance No. 149, Section i.

IV. The Faculty of Law consists of the Professors of the following subjects, viz., Law, Forensic Medicine, Conveyancing, Political Economy.[1] V. The Faculty of Divinity consists of the Professors of the following subjects, viz., Divinity, Divinity and Biblical Criticism, Ecclesiastical History, Hebrew and Semitic Languages. The University Court has power to transfer Chairs from one Faculty to another, and in the event of the foundation of new Chairs, to determine to which Faculty or Faculties such Chairs shall belong.

The Professors constituting each Faculty annually elect one of their number to be Dean of the Faculty.

LECTURERS.

By Ordinance No. 17[2] of the Universities Commission (1889), the University Court is empowered to appoint, after consultation with the Senatus, Lecturers, whose teaching shall (unless otherwise determined by the University Court) qualify for graduation. They are appointed for a period not exceeding five years, but may be re-appointed. University Assistants or Demonstrators are eligible for appointment as Lecturers and *vice versa*; and both offices may be held at the same time by the same person.

Ordinance No. 65 provides that the classes of University Lecturers shall be conducted at the seat of the University, *i.e.* in the city of Glasgow and the immediate neighbourhood thereof, that no classes conducted by Lecturers elsewhere shall qualify for graduation in any Faculty, and that University Lecturers shall be in all respects subject to the discipline of the Senatus Academicus and of the University Court.

BOARDS OF STUDIES.

By Ordinance No. 11 of the Universities Commission (1889), it is provided that the Senate shall institute Boards of Studies corresponding as nearly as may be to the departments of study for graduation in Arts. Each Board of Studies consists of the Principal, the Dean of the Faculty of Arts, and such other members of the Senate and Lecturers in the

---

[1] See Ordinance No. 149, Section i.

[2] This ordinance is printed at length in the University Calendar for 1893-94, at pp. 504, 505.

University as the Senate may from time to time select, a member of the Board being appointed Convener by the Senate. The functions of these Boards are defined in University Court Ordinance No. XXIII., sections xix. and xx.

Provision is made in Ordinance No. 42 for the institution of one or more Boards of Studies in each of the Faculties of Medicine and Science. In Medicine the constituent members of the Board or Boards are Professors in the Faculty of Medicine, together with such Professors in other Faculties whose subjects qualify for graduation in Medicine, and such Lecturers in the University as the Senate may from time to time select. The Board or Boards of Studies in Science are similarly constituted *mutatis mutandis*. The Dean of the Faculty of Medicine is Convener of each Board of Studies in Medicine; the Senate appoints the Convener of each Board of Studies in Science.

UNIVERSITY ASSISTANTS OR DEMONSTRATORS.

By Ordinance No. 17[1] of the Universities Commission (1889), the University Court is empowered to determine, after consultation with the Senatus, the number and grade of the Assistants, if any, to be assigned to each Professor. The appointments are made by the University Court on the recommendation of the Professors. The duties of each Assistant are defined by the Professor, with the approval of the Senate. The Assistants are recognized as Officers of the University, and are styled University Assistants or Demonstrators, as the University Court may determine.

The Arnott and Thomson Demonstratorship, founded in 1875, is attached to the Chair of Natural Philosophy; the Muirhead Demonstratorship, founded in 1877, to the Chair of Physiology; and the Baxter Demonstratorship in Geology, founded in 1889, to the Chair of Geology.

There is also an Assistantship to the Professor of Engineering, which was founded in 1876 by the bequest of Mrs. Black, widow of the Rev. Dr. Black, Barony Church, Glasgow, and designated, in memory of her father, the Young Assistantship. The appointment is made by the University Court in conjunction with the Professor of Engineering.

---

[1] See second note on page 41.

EXAMINERS FOR DEGREES.

By Ordinance No. 13, Sections xiv.—xvi., of the Universities Commission (1889), the Examiners for graduation in Arts, Science, and Medicine respectively are the Professors whose subjects qualify for graduation, together with such Lecturers in the University and such additional Examiners, appointed by the University Court, as the Court may deem necessary. In the case of Medicine, the Court is required to make such provisions as will ensure that every candidate shall be examined in each subject by at least two Examiners, one of whom shall not be a Professor or Lecturer in the University.

By Ordinances No. 39, Section vii., and No. 40, Section vii., of the Universities Commission (1889), the Examiners for graduation in Law are the Professors and Lecturers whose subjects qualify for graduation, and additional Examiners appointed by the University Court.

By Ordinance No. 63, Section ii., of the Universities Commission (1889), the Examiners for graduation in Divinity are the Professors of or Lecturers on the subjects included in the examinations, and two additional Examiners appointed by the University Court.

GENERAL COUNCIL.

The General Council as constituted by the Scottish Universities Act, 1858 (21 and 22 Vict., chap. 83), by the Representation of the People (Scotland) Act, 1868 (31 and 32 Vict., chap. 84), and by the Universities Elections Amendment (Scotland) Act, 1881 (44 and 45 Vict., chap. 40), consists of the following *ex officio* Members, viz., the Chancellor, the Members of the University Court from and after their first election, and the Professors, and also of the following persons after registration, viz., all Masters of Arts of the University, and all persons on whom the University has, after examination, conferred the Degree of Doctor of Medicine, or Doctor of Science, or Bachelor of Divinity, or Bachelor of Laws, or Bachelor of Medicine, or Bachelor of Science, or any other Degree instituted since 13th July, 1868; and also all persons who, previous to the 2nd August, 1861, had, as matriculated students, given regular attendance on the course of study in this University for four complete sessions, or such regular attendance for three complete sessions in this University, and regular attendance for one such complete session in any other Scottish University, the attendance for at least two of such sessions having been on the course of study in the Faculty of Arts.

Members of the Council must have their names enrolled in a book kept for the purpose by the Registrar. The Register of the Council is made up annually in the month of December, for the year following, and includes the names of all members entered on the Registration Book on or before the 30th day of November in each year. The Registration Fee, which is a payment for life, is 20s.

By section 16 of the Act 44 and 45 Vict., chap. 40, it is enacted that no person shall be allowed, after examination, to graduate at any of the Universities of Scotland until he shall have paid the Registration Fee; and it is further enacted that every person who has hitherto been, or who shall in the future become, *ex officio*, a member of the General Council of any of the Universities shall, on payment of the Registration Fee, be put and continued on the Register of Members of General Council of such University during his life, and shall be entitled to all the privileges of a Member of Council. The Act also provides that no person, subject to any legal incapacity, shall be entitled to vote at any parliamentary election, or exercise any other privilege as a member of the General Council.

The corrupt payment of any Registration Fee is punishable as bribery.

The Council meets twice every year—viz., on the last Wednesday of October, and the last Wednesday of April. In addition to these statutory meetings the Council may hold special meetings at the instance of the Chancellor, who shall convene such meetings on a requisition from a quorum of members, and the Council may adjourn any meeting, and may appoint committees to investigate into and report upon any matter remitted to them, or to carry out instructions given to them by the Council. The quorum of the General Council has been fixed by the Universities Commissioners at ten for every complete thousand or fraction of a thousand on the Register, so that for the present year eighty members are requisite to constitute a quorum, there being 7382 names on the Register, but this provision does not apply to the statutory half-yearly meetings. It is competent to the Council to take into consideration all questions affecting the well-being and prosperity of the University, and to make representations from time to time to the University Court, who shall return to the Council their deliverances thereon. The annual reports as to the statistics of attendance and as to the finances of the University, made by the University Court to the Secretary for Scotland, are to be laid by him before the General Council. To it are also to be communicated all new ordinances, or changes of existing ordinances, which may be proposed by the University Court.

The Chancellor and four of the Assessors in the University Court are elected by the Council. The manner in which these officers are elected is regulated by Ordinance No. 9 of the Universities Commission (1889). The President of the Council is the Chancellor; whom failing, the Rector; whom failing, the Principal; whom failing, the Chancellor's Assessor; whom failing, the Rector's Assessor. In the absence of all these officials, a Chairman shall be elected by the meeting; but in the election of Assessors the members of Senate may not take part.

The General Councils of the Universities of Glasgow and Aberdeen jointly return a representative to Parliament. The Vice-Chancellor of Glasgow University is the returning officer.

Members of Parliament for the Universities of Glasgow and Aberdeen.

1868. Right Hon. James Moncrieff, LL.D., Lord Advocate.
1869. Right Hon. Edward S. Gordon, LL.D., Dean of the Faculty of Advocates.
1876. Right Hon. William Watson, LL.D., Lord Advocate.
1880. Right Hon. James Alexander Campbell, LL.D.
1906. SIR HENRY CRAIK, K.C.B., LL.D.

STUDENTS' REPRESENTATIVE COUNCIL.

The constitution and functions of the Students' Representative Council are regulated by Ordinance No. 60, the provisions of which are as follows:—

I. The Students' Representative Council in each University shall submit to the University Court for approval the regulations under which it has been formed or now exists, and these regulations as approved, or with such alterations as may from time to time be approved by the University Court, shall form the constitution of the Students' Representative Council, and shall, subject to the provisions of this Ordinance, determine the functions thereof, and the mode of election thereto.

II. After the University Court has approved of the constitution of a Students' Representative Council in any University, alterations in the said constitution shall be of no effect unless and until they shall receive the approval of the University Court.

III. (1) The Students' Representative Council shall be entitled to petition the Senatus Academicus with regard to any matter affecting the teaching and discipline of the University, and the Senatus Academicus shall dispose of the matter of the petition, or shall, if so prayed, forward any such petition to the University Court, with such observations as it may think fit to make thereon.

(2) The Students' Representative Council shall be entitled to petition the University Court with regard to any matter affecting the students other than those falling under the immediately preceding sub-section.

(3) Nothing contained in this section shall be held to prejudice any right of appeal which may be competent under section 6, sub-section 2, of the Universities Act, 1889, nor the powers and jurisdiction of the Senatus Academicus with regard to the teaching and discipline of the University.

The Council at present consists of representatives (both men and women) from the different Faculties in the University, and its aims are (1) to represent the Students in matters affecting their interests; (2) to afford a recognized means of communication between the Students and the University authorities; (3) to promote social and academic unity among the Students. A Union Committee appointed by the Council completed in Session 1889-90 the arrangements for opening the "Glasgow University Union." The Council has various Sub-Committees—an Inter-Universities Committee, a Magazine Committee, which conducts during the winter session the "Glasgow University Magazine" (published weekly), an Amusements Committee, a Lodgings Committee, and a Book Exchange Committee.

Presidents of the Students' Representative Council.

1885-86. R. M. Wenley, M.A.
1886-87. Gavin Lambie, M.A.
1887-88. C. E. Robertson, M.B., C.M.
1888-89. John H. Harley, M.A.
1889-90. Robert Bell, M.B., C.M.
1890-91. William Newlands.
1891-92. John White, M.A.
1892-93. R. S. Horne, M.A.
1893-94. John H. Pagan, B.D.
1894-95. W. M. R. Pringle, M.A.
1895-96. John S. Thomson, M.A.
1896-97. Hyam Goodman, M.A.
1897-98. Arth. S. Middleton, M.A.
1898-99. James M. Black, M.A.
1899-1900. Ivy M'Kenzie, M.A., B.Sc.
1900-1901. John Muir, B.Sc.
1901-2. E. R. Mitchell, M.A.
1902-3. D. A. Dick.
1903-4. G. J. Spreull, LL.B.
1904-5. F. W. Saunders, B.D.
1905-6. R. H. Napier, M.A.
1906-7. J. C. Watson.
1907-8. Robert E. Lee, M.A.
1908-9. JAMES B. GALBRAITH.

STUDENTS

Number of Students in the several Faculties :

	WHOLE SESSION, 1908-9.	SUMMER, 1909.	TOTAL.
MEN.			
In Arts,	688	—	688
Science,	348	9	357
Theology,	59	5	64
Medicine,	564	62	626
Law,	208	2	210
Arts and Medicine,	2	—	2
Arts and Science,	2	—	2
Science and Medicine,	—	—	—
Arts and Law,	1	—	1
Science and Law,	1	—	1
Single class enrolment,	53	—	53
	1926	78	2004
WOMEN.			
In Arts,	577	—	577
Science,	15	—	15
Medicine,	76	7	83
Arts and Science,	1	—	1
Single class enrolment,	19	—	19
	688	7	695
Total,	2614	85	2699

Ordinance No. 50 of the Universities Commission (1889) requires that each student shall pay a matriculation fee of One Guinea, at the commencement of each winter session, for the whole academical year then next ensuing; and any student desirous of attending a class or classes during a summer session, without having matriculated at the commencement of the immediately preceding winter session, shall in respect of such summer session pay a matriculation fee of half a guinea. Ordinance No. 147 contains the following regulation with regard to matriculated students:—No person shall be deemed to be a matriculated student in any University or shall enjoy any of the privileges of a matriculated student unless, in addition to paying the matriculation fee, he is enrolled as a student in attendance in one or more classes in the University, and has paid the fees entitling him to such attendance: provided that nothing herein contained shall affect the right of the University Court to exact a fee in lieu of and not exceeding the matriculation fee from any candidate for any examination or for graduation, not being at the time a matriculated student, in addition to the fee payable for such examination or graduation. The University Court is empowered in special circumstances to permit persons who have not matriculated to attend any single class in any Faculty, on payment of an Entrance Fee of Five Shillings in addition to the authorized class fee, subject to the following provisions, viz.:—(1) That attendance on any class without payment of the matriculation fee shall not qualify for graduation in any Faculty, (2) that persons who have not paid the matriculation fee shall not be entitled to a certificate of attendance on any class, and (3) that payment of such entrance fee shall not confer any University privilege other than the right of attendance on such class. Men students matriculate at the University, and women students at Queen Margaret College, on and after 8th October. Matriculation closes on 21st October.

Students are entitled, after matriculation, to the privilege of admission to the University Library and to the Hunterian Museum; they are also entitled to vote for the Lord Rector. They are classified as students in Arts, Science, Medicine, Law, and Divinity, according to the nature of their studies; and they are likewise, for academical purposes, divided into Togati and Non-Togati—the students of the Humanity, Greek, Logic, Ethics, and Natural Philosophy classes being Togati or gown students, from being required to wear the ancient academical robe—a scarlet cloak.

Under the Non-Togati, or ungowned students, are comprehended all those who, having finished their course of instruction in Arts, are prosecuting their studies in the other Faculties, with a more immediate view to their intended professions; and it comprises also other persons resident in the city or its vicinity, who, though engaged in other avocations, are disposed to cultivate literary pursuits, or to extend their acquaintance with some favourite branches of learning or science, by attending the lectures given at the University.

A distinction is also made between Public and Private students. The former are required to undergo examinations, and to read or perform exercises on the subjects treated of in the lectures,—and they only are allowed to reckon their sessions of study as a qualification for proceeding to degrees in the several Faculties.

By Ordinance No. 18[1] of the Universities Commission (1889) the University Court was empowered to admit women to graduation, and to provide for their instruction, either by admitting them to the ordinary classes, or by instituting separate classes for their instruction. Under this ordinance women were for the first time admitted as matriculated students of this University in Session 1892-93.

Medical students have access, for the usual attendance in the wards and on the Clinical Lectures, to the Royal Infirmary situated in the Eastern part of the city, and to the Western Infirmary in the immediate vicinity of the University. In the Royal Infirmary certain wards are appropriated to the clinical instruction of women.

UNIVERSITY CHAPEL.

The University Chapel is under the management of a Committee of Senate, of which the Principal is Convener.

Public Worship is celebrated on certain Sundays during the Winter Session at 2.30 P.M., in the Bute Hall. The services are conducted by graduates of this University and other clergymen of various denominations.

GYMNASIUM.

This building was erected by public subscription, and fitted according to the most improved models, under the superintendence of the late Mr. Maclaren of Oxford, at a total cost of £2600, and was opened in January, 1872.

---

[1] This ordinance is given in full in the *University Calendar* for 1892-93, pp. 504-506.

Gymnastic, Physical Culture, Boxing, and Fencing classes are held during the session, and the American game of Basket Ball has been successfully introduced. Mr. James Hughes conducts the classes in Gymnastics and Fencing, and Mr. John Boyle is Instructor in Boxing. Gymnastic classes meet on three days a week, to be arranged, from 10 A.M. to 1 P.M., and from 4.30 P.M. to 5.30 P.M. Each class meets three times a week, and students may join any class which is convenient for them.

Gentlemen not connected with the University are admitted to the use of the Gymnasium, and a special evening class is formed for their benefit, which meets on Mondays and Thursdays from 8 P.M. till 10 P.M. Students may join this class, if they wish.

Fees.—Gymnastics. *For all Students:* One month, 5s.; Two months, 8s. 6d.; Three months, 12s.; Six months, 20s. *For Non-Students:* the Quarter (*i.e.* twice a-week for three months), 15s.; whole season (seven months), 35s. Fencing and Boxing: 10s. for a course of twelve lessons. Special arrangements are made for the summer session.

The Oxford Silver Medal, presented annually by the late Mr. Maclaren, for competition among the students, is continued by the Gymnasium, and, at the competition in March, 1909, was gained by William J. Smith. For the Oxford Bronze Medal, open to non-students, there were no entries this year.

A Badge presented by the Ladies of the University is awarded to the runner-up in the medal competition; in 1909 it was gained by C. C. Anderson.

In 1899 Professor Ramsay presented to the Gymnasium a Silver Challenge Cup for annual competition among teams representing the four Nations into which students are divided in voting at the Rectorial elections. In the competition held in March, 1909, the winning team was Loudoniana, composed of the following members: William J. Smith (Captain), E. Sommerfeldt, A. Lorentzen, and E. G. Guthrie.

Gymnastic classes for members of Queen Margaret College are also arranged.

The Gymnasium is managed by a joint-committee of professors and students.

Hon. President, Professor F. O. Bower, Sc.D., F.R.S.

Hon. Treasurer, Alan E. Clapperton, B.L., 91 West Regent Street, Glasgow.

Hon. Secretary, C. C. Anderson, 8 Westbourne Terrace, Kelvinside, Glasgow.

COMMITTEE OF THE SENATE FOR EXTERNAL EXAMINATIONS AND APPOINTMENTS.

This Committee is appointed by the Senate for the double purpose of spreading information among students about public examinations and appointments outside the University and of acting as a nominating body in the case of candidates for appointments where such preliminary nomination is required. The following information about some of the chief examinations and appointments for which a University training is suitable must not be regarded as exhaustive, but may be useful as indicating the scope of the Committee's work.

Clerkships, Class I., in the Home Civil Service:

Civil Service of India:

Eastern Cadetships (Ceylon, Hong Kong, Straits Settlements) *in the Colonial Service.*

About seventy posts are filled by open competition at a joint examination held annually in London in August. Names must be entered by July 1st on a prescribed form, to be obtained from the Secretary to the Civil Service Commission, Burlington Gardens, London, W.

The limit of age for candidates is 22 to 24 on August 1. An entrance fee of £6 must be paid by each competitor. There is a choice of twenty-five subjects, marked at varying values. None of these are compulsory, although it is customary for every candidate to take the English Composition—an Essay—marked at 500 maximum. The only restraint on the choice of a candidate is that the maximum number of marks which can be obtained from the subjects chosen must not exceed 6000.

All the subjects are examined up to a high honours standard, and an intending competitor should be capable of obtaining First or good Second Class Honours in at least one Honours group, or of gaining distinction in the examination for the B.Sc. degree.

Civil Service of Egypt and the Soudan.

Names are forwarded in the first instance by the appointments Boards of Universities, and candidates are selected from such nominees by a Committee appointed by the Government of Egypt. The necessary qualifications for nomination are an Honours degree, physical fitness, and (especially important) proved capacity of management in such ways as are open to schoolboys or undergraduates. Candidates should be about 22 or 23 years of age.

Indian Education Department.

Professorships in Government Colleges, Inspectorships of Schools, Headmasterships in certain Secondary Schools, Superintendentships of Schools of Arts.

The limits of age are 23 to 30. The qualifications are an Honours degree, a University diploma, experience as a teacher, knowledge of special subjects, bodily activity and proficiency in games.

Application for forms of entry must be made in the first instance to the Secretary of the Judicial and Public Department, India Office, London. The form, when filled up, should be sent with the necessary testimonials to the Convener of the University Appointments Committee. The appointments are made, as vacancies occur, by the Secretary of State for India out of the list of names forwarded by this and similar Committees.

Commissions in the Regular Forces.

Graduates of a Scottish University, either M.A. or B.Sc., are eligible for Commissions in the Army, but must prepare themselves during their student career by a course of lectures in military subjects and of practical training. The age limit for graduates is 20-25 for the British Army, 20-24 for the Indian Army.

Police Service of India, Hong Kong, Straits Settlements, and Federated Malay States.

A number of posts in the Indian Service are offered for competition every year: posts in Further India are filled up as vacancies occur. When necessary, one examination is held for both services, and candidates may sit it either in London, in which case the fee is £2, or in Edinburgh, in which case the fee is £3. Names must be entered by May 1st on a prescribed form to be obtained from the Secretary, Judicial and Public Department, India Office, London. The examination is held in June or July. The limits of age for candidates are 19-21. There is a choice of nine subjects (Mathematics counting as two), all bearing the same maximum of marks (2000). Of these English alone is compulsory. Any four other subjects may be offered. Freehand Drawing, however, is an optional additional subject, not included in the nine, and carrying 250 marks. The standard is that of Honours or of a good all-round Ordinary degree.

Colonial Appointments.

There are a large number of posts in Colonies administered by the Colonial Office, in which appointments are made directly by the Secretary of State for the Colonies. There is a steady demand for young qualified medical men: there is not much opening for lawyers or chartered accountants: a few appointments are made every year to administrative posts of various kinds. The chief openings are in Nigeria, East Africa, and Uganda, but vacancies also occur in other places. Candidates must be over 24 years of age, and application must be made to the Secretary of State for the Colonies, Downing Street, London, whose Private Secretary will supply a form to be filled up. It is essential that anyone desiring a Colonial post should interview the Private Secretary at the earliest opportunity. There is no examination; appointments are made when vacancies occur, so that applicants will be obliged to wait at least six months. The official form, when filled up, should be sent in through the Convener of the University Appointments Committee.

Examinerships in the Exchequer and Audit Departments:

Junior Appointments in the Supply and Accounting Departments of the Admiralty:

Second-class Assistant Accountants in the Army Accounts Department:

Junior Appointments in the Royal Ordnance Factories.

These are all combined, so far as there are vacancies, in one examination. The limits of age are 18 and 19½ on May 1 or November 1. There is an entrance fee of £3. The only compulsory subjects are English and Elementary Mathematics. There are a number of other subjects in which papers are set on two standards marked at 2000 and 4000 respectively. The maximum number of marks which can be obtained from the subjects chosen must not exceed 10,000. A candidate must include one language among his chosen subjects. The standard is that of a fair Ordinary degree.

Other services for which a good degree (M.A. or B.Sc.) is a suitable preparation are Student Interpreterships in the Ottoman Dominions, Persia, Greece, and Morocco, and in China, Japan, and Siam; the Consular Service; Indian Forest Service; Assistantship in special departments in the British Museum; Assistant Examinerships in the Patent Office; Junior Inspectorships in the Board of Education, Whitehall; Administrative posts in Crown Colonies. Information about these and other posts may be obtained from the Convener of the University Committee.

For graduates with a degree in Engineering there are openings as Assistant Engineers in the Indian Public Works, in the Admiralty, and in the General Post Office.

For graduates with a Medical degree information can be supplied about the Indian Medical Service, medical appointments in the Colonies and Protectorates, the Royal Army Medical Corps, and the Medical Department of the Royal Navy.

The Committee of the Senate consists of the Principal, Professors Jack, Bower, Barr, Biles, Jones, Smart, Glaister, Phillimore, Gray, Medley, Sir H. C. Cameron, Latta, Latham, and Dr. R. A. Duff—Professor Medley, Convener.

II.—TABLE OF UNIVERSITY FEES.

I.—MATRICULATION FEES [Ord. No. 50, Sec. i.].

At the commencement of each Academical Year, which extends from 1st October to 30th September, and includes both Winter and Summer Sessions, ...	£1	1	0
At the commencement of each Summer Session, if the Student has not matriculated for the Academical Year then current, ...	0	10	6

II.—ENTRANCE FEES [Ord. No. 50, Sec. ii.].

On admission of persons who are not matriculated Students to any single class, *if permitted by the University Court in special circumstances*, ...	0	5	0
N.B.—Attendance under this Regulation does not qualify for Graduation, and no Certificate for such attendance is given. The Entrance Fee confers no University privileges other than the right of attendance above mentioned.			

III.—ENROLMENT FEES [Ord. No. 12, Sec. v., Ord. No. 14, Sec. viii. 5, Ord. No. 23, Sec. vi., Ord. No. 134, Sec. v.].

At the commencement of each year of attendance on the lectures of Extra-Academical Teachers in Glasgow, whose Lectures are recognised for Graduation in Medicine or Science, ...	1	1	0

IV.—EXAMINATION FEES.

Preliminary Examinations in Arts, Science, or Medicine —[Ord. No. 13, Sec. xii.].			
On each entry for Examination, ...	0	10	6
Degree of Master of Arts (M.A.)—[Ord. No. 50, Sec. iii.].			
The Fee for this Degree is	5	5	0
Payable £1 1s. on entering for Examination in each subject till £5 5s. are paid.			
Degree of Bachelor of Science (B.Sc.)—[Ord. No. 50, Secs. iv.-vii.].			
The Fee for this Degree is	6	6	0
Payable £1 1s. on entering for Examination in each subject till £6 6s. are paid.			
Diploma in Education—			
On entering for Examination, ...	2	2	0
Certificate in Engineering Science—			
On entering for last subject of Examination, ...	1	1	0
Degree of Doctor of Letters (D.Litt.)—[U.C. Ord. No. xxvi., Sec. xiv.].			
On lodging Thesis, ...	10	10	0
Degree of Doctor of Philosophy (D.Phil.)—[U.C. Ord. No. xxvi., Sec. xiii.].			
On lodging Thesis, ...	10	10	0

Degree of Doctor of Science (D.Sc.)—[U.C. Ord. No. xxvi., Sec. xii.]			
On lodging Thesis,	£10	10	0
Degrees of Bachelor of Medicine (M.B.), and Bachelor of Surgery (Ch.B.)—[Ord. No. 14, Sec. xxiii.].			
On entering for First Professional Examination,	6	6	0
,, Second ,, ,,	6	6	0
,, Third ,, ,,	5	5	0
,, Fourth ,, ,,	5	5	0
Degree of Doctor of Medicine (M.D.)—Old Regulations—			
On lodging Thesis,	5	5	0
Degree of Doctor of Medicine (M.D.)—New Regulations—[Ord. No. 14, Sec. xxiii.].			
On entering for Examination and lodging Thesis,	10	10	0
Degree of Master of Surgery (Ch.M.)—[Ord. No. 14, Sec. xxiii.]			
On entering for Examination and lodging Thesis,	10	10	0
Degree of Bachelor of Laws (LL.B.)—[Ord. No. 50, Sec. xii.]			
The Fee for this Degree is	6	6	0
Payable £1 1s. on entering for each subject till £6 6s. are paid.			
Degree of Bachelor of Law (B.L.)—[Ord. No. 50, Sec. xi.].			
The Fee for this Degree is	5	5	0
Payable £1 1s. on entering for each subject till £5 5s. are paid.			
Degree of Bachelor of Divinity (B.D.)—[Ord. No. 50, Sec. viii.].			
On entering for Examination in First Department,	2	12	6
,, ,, Second ,,	2	12	6

V.—Class Fees (*see* pages 60–67 and 167, 168).

VI.—Library Fees [Ord. No. 64, Secs. x.–xiii.]

Each Member of the General Council, each year (commencing 1st October) in which he wishes use of Library,	0	10	6
Or.			
This may be compounded for by a single payment of	5	5	0
Every Matriculated Student enrolled in a Class, and every Extra-Mural Student, who wishes use of Library, a *deposit* of	1	0	0
Special Readers—each year in which the privilege is granted,	0	10	6

VII.—Registration Fee.

All Candidates proceeding to Graduation after Examination who are not already members of the General Council are required by the Act 44 and 45 Vict., Ch. 40, to pay the Registration Fee, with a view to their names being enrolled in the General Council. The Fee is	1	0	0

III.—SEPARATE FACULTIES AND CLASSES.

A. ARTS.

In the Faculty of Arts the twenty-five teaching weeks of the session are distributed over three terms as follows:

First term begins on 11th October, and ends on 17th December, 1909.
Second ,, ,, 4th January, ,, ,, 17th March, 1910.
Third ,, ,, 19th April, ,, ,, 20th May, 1910.

B. OTHER FACULTIES.

In the Faculties of Science, Medicine, and Law, the Session falls into two sections, a Winter and a Summer Session; in the Faculty of Theology the teaching meanwhile does not extend beyond the Winter Session.

The Winter session begins on 11th Oct., 1909, and ends on 17th Mar., 1910.
The Summer ,, ,, 19th Apr., 1910, ,, ,, 28th June, 1910.

C. CLASS-HOURS AND CLASS-FEES.

The following are the existing arrangements of class-hours, but some readjustment will be made in the Arts classes to meet the requirements of the New Ordinance for Degrees in Arts. Of these changes due notice will be given.

I.—ARTS.

Classes.	*Hours.*	*Class Fees.*		
Latin,	9 a.m.,	£4	4	PROF. PHILLIMORE.
——— *Intermediate*,	1 p.m.,	4	4	
——— *Honours*,	11 a.m.,	4	4	
——— *Prose*,	11 a.m., Thurs.,	1	1	
Greek,	8 a.m.,	4	4	PROF. DAVIES.
——— *Honours*,	12 noon,	4	4	
——— *Prose*,	12 noon, once weekly,	1	1	
English,	11 a.m.,	4	4	PROF. DIXON.
———*Honours*,	12 noon,	4	4	
British History, Honours,	10 a.m.,	4	4	
French,	12 noon,	4	4	M. Charles Martin.
——— *Honours*,	11 a.m.,	4	4	
German,	10 a.m.,	4	4	Dr. H. Smith.
——— *Honours*,	9 a.m.,	4	4	
Italian,	4 p.m.,	4	4	Signor F. Agnoletti.
——— *Honours*,	11 a.m.,	4	4	
——— *Elementary*,	(see p. 80),	2	2	

Classes.	*Hours.*	*Class Fees.*	
Hebrew, Junior,	10 a.m.,	£3 3	PROF. STEVENSON.
———*Senior,*	11 a.m. (see p. 152),	4 4	
———*Honours,*	9 a.m., three days weekly,	4 4	
Syriac,	(see p. 152),	2 2	
Arabic,	(see p. 153),	2 2	Mr. T. H. Weir.
Celtic,	4 p.m.,	4 4	Dr. Geo. Henderson.
Logic and Metaphysics,	9 a.m.,	4 4	PROF. LATTA.
——— *Honours,*	11 a.m.,	4 4	
Experimental Psychology,	(see p. 83),	4 4	Dr. H. J. Watt
Moral Philosophy,	8 a.m.,	4 4	PROF. JONES.
——— *Honours,*	12 noon,	4 4	
Political Philosophy,	(see p. 84),	3 3[1]	Dr. R. A. Duff.
Political Economy,	2 p.m.,	4 4	PROF. SMART.
———*Honours,*	3 p.m.,	4 4	
Social Economics,	(see p. 86)	3 3[1]	Mr. Thomas Jones.
Education,	4.15 p.m.,	4 4	Mr. W. Boyd.
Mathematics,	9 a.m., or 12 noon,	4 4	PROF. ——
——— *Honours (Intermed.),*	10 a.m., or 11 a.m.,	4 4	
——— *Honours (Advanced),*	11 a.m., Mon., Wed., Fri.,	4 4	
Natural Philosophy (Lectures),	9 a.m.,	4 4	PROF. GRAY.
——— *(Lectures and Practical Work),*	(see p. 89),	6 6	
——— *Honours, Section A.,*	1 p.m., Mon.; and 12 noon, Wed., Fri.,	4 4	
——— *Honours, Section B.,*	12 noon, Mon., Tu., Th.,	4 4	
——— *Honours, Sections A. & B.,*		5 5	
Physical Laboratory, Whole Session	(6 hours weekly),	6 6	
——— *Half* ,,	(6 hours weekly),	3 3	
——— ,, ,,	(10 hours weekly),	4 4	
Astronomy, First,	3 p.m., Mon., Wed., and Fri. (see p. 95),	2 2	PROF. BECKER.
——— *Second,*	3 p.m., Tues., Th., and Fri. (see p. 95),	2 2	
——— *First and Second in same Session,*		4 4	
Chemistry,	10 a.m.,	4 4	PROF. FERGUSON.
Chemical Laboratory,	10 a.m. to 4 p.m.,	10 10	
——— *(Half Session),*		5 5	
Zoology (Elementary),	9 a.m.,	4 4	PROF. KERR.
Zoological Laboratory (Elementary),	11 a.m. or 3 p.m.,	3 3	
Zoology, Advanced (Jan.), (see p. 112),	9 a.m.,	3 3	
Botany, Advanced,	10 a.m.,	3 3[2]	PROF. BOWER.
Botanical Laboratory, Advanced,	(see p. 110),	3 3[2]	
Botany [Half Course for M.A.] (4 Jan.–17 March),		4 4	Dr. A. A. Lawson.
——— (19 April–28 June),	10 a.m.,	3 3[3]	
——— (Oct.-Dec.),	2 to 4 p.m.,	3 3[4]	

---

[1] Fee for Political Philosophy and Social Economics taken in a single session, £5 5s.

[2] See fourth note on page 63.

[3] To be preceded for graduation purposes by the Winter Half Course (Jan.–March).

[4] To be preceded for graduation purposes by the Summer Half Course. After the year 1909 the half course Oct.–Dec. will not be given.

Classes.	*Hours.*	*Class Fees.*	
Geology (Lectures and Practical),	4.30 p.m.,	£5 5	PROF. GREGORY.
Geography,	(see p. 92),	4 4	H. G. Lyons, F.R.S.
——— *Advanced*,	(see p. 92),	4 4	
History,	10 a.m.,	4 4	PROF. MEDLEY.
———*Honours*,	11 a.m.,	4 4	
Constitutional Law and History,	4.30 p.m.,	4 4	Dr. W.S. M'Kechnie.
———*Honours*,	3 p.m.,	4 4	
Roman Law,	8 a.m.,	4 4	———

II.—SCIENCE.[1]

WINTER SESSION, 1909-10.

Classes.	*Hours.*	*Class Fees.*	
Mathematics,	9 a.m. or 12 noon,	£4 4	PROF. ———
——— *Honours(Intermed.)*,	10 a.m. or 11 a.m.,	4 4	
——— *Honours(Advanced)*,	11 a.m., Mon., Wed., Fri.,	4 4	
Natural Philosophy (Lectures),	9 a.m.,	4 4	PROF. GRAY.
——— *(Lectures and Practical Work)*,	(see p. 89),	6 6	
Higher Mathematical A.,	1 p.m., Mon.; 12 noon, Wed., Fri.,	4 4	
——— *B.*,	12 noon, Mon., Tu., Th.,	4 4	
——— *A. and B.*,		5 5	
Physics for Public Health (Half Session),		2 2	
Physical Laboratory, Whole Session	(6 hours weekly),	6 6	
——— *Half* ,,	(6 hours weekly),	3 3	
——— ,, ,,	(10 hours weekly),	4 4	
Electricity,	12 noon, Wed. and Fri.,	3 3	Dr. G. E. Allan.
Astronomy, First,	3 p.m., Mon., Wed., and Fri. (see p. 95),	2 2	PROF. BECKER.
——— *Second*,	3 p.m., Tues., Th., and Fri. (see p. 95),	2 2	
——— *First and Second in same Session*,		4 4	
Chemistry,	10 a.m.,	4 4	PROF. FERGUSON.
Chemical Laboratory,	10 a.m. to 4 p.m.,	10 10	
——— *(Half Session)*,		5 5	
Physical Chemistry,	[Hours to be arranged],	3 3	Mr. F. Soddy.
——— *Practical Course*,		[2]	
Radio-activity,	(Not in 1909-10),	2 2	
Organic Chemistry, Elem.,	(see p. 114),	1 1	Dr. T. S. Patterson.
——— *Advanced*,	(see p. 96),	3 3	
Metallurgical Chemistry,	12 noon,	4 4	Dr. Desch.
Metallurgical Laboratory,	10 a.m. to 4 p.m.,	5 5[3]	

---

[1] Any Graduate in Science shall be allowed to enter any Laboratory Course within the curriculum of the degree which he has taken, on payment of half the ordinary fee for such course, provided that if the course be required for further graduation he shall pay the full fee.

[2] Students must be enrolled for the Chemical Laboratory.

[3] Half-day attendance.

Classes.	*Hours.*	*Class Fee.*	
Anatomy, Junior,	11 a.m.,	£4 4[2]	Prof. and Demonstrators.
——— *Senior,*	1 p.m.,	4 4[2]	
Practical Anatomy,	9 a.m. to 4.15 p.m.,	3 3[3]	
Physiology,	12 noon,	4 4[2]	Prof. Noel Paton and Muirhead Demonstrator
Practical Physiology (see p. 118),			
——— *Advanced* (see p. 118),		4 4[6]	
Physiological Laboratory,	(see p. 119),	10 10	
——— (*Half Session*),		5 5	
Physiological Chemistry,	(see p. 119),	2 2	Dr. E. P. Cathcart.
Psychology,	(see p. 120),	1 1	Dr. H. J. Watt.
Zoology, Elementary,	9 a.m.,	4 4	Prof. Kerr
Zoological Laboratory, Elementary,	11 a.m. or 3 p.m.,	3 3	
Zoology, Advanced (Jan.),	9 a.m.,	3 3	
Botany, Advanced,	10 a.m.,	3 3[4]	Prof. Bower
Botanical Laboratory, Advanced,	(see p. 110),	3 3[4]	
Geology (*Public Health*),	4.30 p.m.	3 3	Prof. Gregory
——— (*Mining*), *Part I.,*	4.30 p.m.	3 3[5]	
——— *Part II.*	(see p. 100),	2 2	
——— (*Agriculture*),	4.30 p.m.	1 1	
——— (*Engineering*),	4.30 p.m.	1 1	
Geology and Mineralogy,	4.30 p.m.	5 5	
——— (*Advanced*),	5.30 p.m.	5 5	
Practical Geology,	4.30 p.m. to 6.30 p.m.	3 3	
Public Health,	12 noon, 4 days weekly,	4 4	Prof. Glaister.
Public Health Laboratory,	10 a.m. to 1 p.m.,	12 12	Prof. Glaister and Assistant.
——— (*Half Session*),		6 6	
Engineering, Class I.,	9 a.m.,	2 2	Prof. Barr, Lecturers and Demonstrators.
——— *II.,*	10 a.m., Mon., Wed., Fri.,	2 2	
——— *III.,*	10 a.m., Mon., Wed., Fri.,	2 2	
——— *IV.,*	9 a.m. daily, ex. Sat.,	4 4	
Engineering Drawing, etc.,	9 a.m. to 5 p.m. daily, except Sat.,	4 4	
Engineering Laboratory,	9 a.m. to 5 p.m.,	10 10	
——— (*Second Session*),		5 5	
Engineering Laboratory, Mechanical or Electrical,	9 a.m. to 5 p.m.,	3 3	
Electrical Engineering, Junior,	8 a.m. Mon., Wed., Fri.,	2 2	Mr. J. S. Nicholson
——— *Senior,*	8 a.m. Tues., Thur., Sat.,	2 2	
Mining, Class I.,	3 p.m., Mon., Wed.,	2 2	Prof. Latham.
——— *II.,*	3 p.m., Tues., Thurs.,	2 2	
——— *III.,*	3 p.m., Fri.,	1 1	
——— *IV.* (*Practical*),		1 1	
——— (for Evening Classes, see p. 107).			
Mine Management, Class I.,	7.30 p.m., Mon.,	1 1	
——— *II.,*	7.30 p.m., Wed.,	1 1	

[1] If with Practical Class, £5 5s.

[2] Fee for a second or subsequent Session, £3 3s.

[3] Students who have taken two winters and two summers of Practical Anatomy, as well as the Junior and Senior Lecture courses, may afterwards enrol in Practical Anatomy at £1 1s.

[4] Students who have attended Lectures or Laboratory Classes in Botany and paid fees amounting to at least £13 13s., in respect of such classes, may afterwards enrol in any Lecture or Laboratory Class in Botany for £1 1s.

[5] Fee for Students who have already attended the Geology Class in the University, £2 2s.

[6] Fee includes Histology in the following summer session.

Classes.	*Hours.*	*Class Fees.*		
Naval Architecture and Marine Engineering, Junior,	12 noon, Mon., Wed., Fri.,	£3	3	PROF. BILES.
———————— *Senior,*	11 a.m., Mon., Tu., Th.,	3	3	
——— *Practical, Junior,*	2 to 5 p.m., Tu., Wed., Th., and Fri.,	3	3	
——————— *Senior,*	2 to 5 p.m., Tu., Wed., Th., and Fri.,	3	3	

SUMMER SESSION, 1910.

Classes.	*Hours.*	*Class Fees.*		
Zoology, Advanced,	9 a.m.,	£3	3	PROF. KERR.
Botany, Elementary,	8 a.m. (see p. 110),	4	4[2]	PROF. BOWER.
Botany, Advanced,	(see p. 110),	3	3[3]	
Botanical Laboratory,	9 a.m. to 4 p.m.,	3	3[3]	
——— *Advanced,*		5	3[3]	
Physical Laboratory,	(10 hours weekly),	4	4	PROF. GRAY.
———————	(6 hours weekly),	3	3	
Chemical Laboratory,	10 a.m. to 4 p.m.,	5	5	PROF. FERGUSON.
Organic Chemistry, Elem.,	(see p. 114),	1	1	Dr. T. S. Patterson.
——————— *Adv.,*	(see p. 96),	3	3[1]	
Practical Anatomy,	9 a.m. to 4 p.m.,	2	2[4]	PROF. ——— and Demonstrators.
Embryology,	11 a.m. (see p. 116),	2	2	Dr. J. F. Gemmill.
Embryological Laboratory,	9 a.m. to 4 p.m. (see p. 116),	3	3	
Practical Anatomy and Embryology, if taken together,		3	3	
Applied Anatomy,	1 p.m.,	2	2	Dr. R. Kennedy.
Practical Physiology,	9 to 11 a.m.,	4	4[5]	PROF. NOËL PATON and Muirhead Demonstrator.
——————— *Advanced*	(see p. 118),	4	4[2] [6]	
Physiological Laboratory,	10 a.m. to 4 p.m.,	5	5	
Public Health Laboratory,	(see p. 124),	6	6	PROF. GLAISTER.

III.—MEDICINE.

WINTER SESSION, 1909-10.

Classes.	*Hours.*	*Class Fees.*		
Zoology, Elementary,	9 a.m.,	£4	4[2]	PROF. KERR.
Zoological Laboratory, Elementary,	11 a.m. or 3 p.m.,	3	3	
Chemistry,	10 a.m.,	4	4[2]	PROF. FERGUSON.
Chemical Laboratory,	10 a.m. to 4 p.m.,	10	10	
——————— *(Half Session),*		5	5	
Organic Chemistry, Elem.,	(see p. 114),	1	1	Dr. T. S. Patterson.
Anatomy, Junior,	11 a.m.,	4	4[2]	PROF. ——— and Demonstrators.
——— *Senior,*	1 p.m.,	4	4[2]	
Practical Anatomy,	9 a.m. to 4.45 p.m.,	3	3[4]	

[1] Students are permitted to enrol in the Summer session for this class only by arrangement with the Lecturer. The class ordinarily begins in October.

[2] Fee for a second or subsequent course, £3 3s.

[3] See fourth note on page 63.

[4] Students who have taken two winters and two summers of Practical Anatomy, as well as the Junior and Senior Lecture Courses, may afterwards enrol in Practical Anatomy at £1 1s.

[5] See third note on page 66.

[6] The fee covers the continuation of the course in the following winter session.

Classes.	*Hours.*	*Class Fees.*		
hysiology,	12 noon,	£4	4[1]	PROF. NOEL PATON and Muirhead Demonstrator
ractical Physiology,	(see p. 118),	1	1[2]	
hysiological Laboratory,	(see p. 119),	10	10	
——— ——— (*Half Session*),		5	5	
hysiological Chemistry (see p. 119),		2	2	Dr. E. P. Cathcart.
sychological Physiology (see p. 120),		1	1	Dr. H. J. Watt.
ateria Medica and Therap.,	11 a.m.,	4	4[1]	PROF. STOCKMAN.
athology, Systematic,	3 p.m.,	4	4[1]	PROF. MUIR.
——— *Demonstrations only,*	Tues., Fri.,	1	1	
urgery,	12 noon,	4	4[1]	PROF. SIR WM. MACEWEN.
idwifery,	2 p.m.,	4	4[1]	PROF. M. CAMERON.
ractice of Medicine,	11 a.m.,	4	4[1]	PROF. GEMMELL.
linical Medicine,	9 a.m.,	3	3	PROF. — and PROF. GEMMELL.
linical Surgery,	9.15 a.m.,	3	3	PROF. SIR H. C. CAMERON and PROF. SIR WM. MACEWEN.
ublic Health,	12 noon, four days weekly,	4	4	PROFESSOR GLAISTER and Assistant.
ublic Health Laboratory,	10 a.m. to 4 p.m.,	12	12	
——— ——— (*Half Session*),		6	6	
ar,	4 p.m. (see p. 131),	1	1	Dr. Thomas Barr.
hroat and Nose,	4 p.m., Th. (University), 4 p.m., Tues. or Fri. (Western Infirmary),	1	1	J. Walker Downie, M.B.

SUMMER SESSION, 1910.

Classes.	*Hours.*	*Class Fees.*		
hysics,	11 a.m.,	£3	3	Dr. James G. Gray.
ractical Physics,	9 a.m. to 11 a.m. *or* 2 p.m. to 4 p.m. (see p. 92),	2	2	PROF. GRAY.
otany,	8 a.m. (see p. 110),	4	4[1]	PROF. BOWER.
otanical Laboratory,	9 a.m. to 4 p.m.,	3	3	
linical Medicine,	9 a.m.,	2	2	PROF. — and PROF. GEMMELL.
linical Surgery,	9.15 a.m.,	2	2	PROF. SIR H. C. CAMERON and PROF. SIR WILLIAM MACEWEN.
hemical Laboratory,	10 a.m. to 4 p.m.,	5	5	PROF. FERGUSON.
rganic Chemistry (*Elem.*),	(see p. 111),	1	1	Dr. T. S. Patterson.
ractical Anatomy,	9 a.m. to 4 p.m.,	2	2	PROF. — and Demonstrators.
mbryology,	11 a.m. (see p. 116),	2	2	Dr. J. F. Gemmill.
mbryological Laboratory,	9 a.m. to 4 p.m. (see p. 116),	3	3	
ractical Anatomy and Embryology, if taken together,		3	3	

---

[1] Fee for a second or subsequent session, £3 3s.

[2] See fourth note on p. 63.

[3] Students who have taken two winters and two summers of Practical Anatomy, as well as e Junior and Senior Lecture courses, may afterwards enrol in Practical Anatomy at £1 1s.

[4] Fee for a second attendance, £3 3s. See also third note on page 66.

Classes.	*Hours.*	*Class Fees.*	
Applied Anatomy,	1 p.m., Mon., Wed., Fri. (see p. 116),	£2 2	Dr. Robert Kennedy.
Practical Pharmacy,	12 noon,	3 3	Prof. Stockman.
Practical Physiology,	9 to 11 a.m.,	4 4[3]	Prof. Noël Paton and Muirhead Demonstrator.
Physiological Laboratory,	(see p. 119),	5 5	
Medical Jurisprudence and Public Health,	11 a.m.,	4 4[1]	Prof. Glaister.
Public Health Laboratory,	(see p. 124),	6 6	
Practical Pathology,[2]	1 to 3 p.m. (see p. 122),	3 3	Prof. Muir.
Operative Surgery,	12 noon, with practical work at other hours as may be arranged,	3 3	Prof. Sir Wm. Macewen.
Diseases of Women,	2 p.m., Tu., Th., Fri.,	2 2	Prof. M. Cameron.
Insanity,	12 noon, Wed. (University), 10 a.m. Sat. (Gartnavel),	2 2	L. R. Oswald, M.B.
Ear,	4 p.m., (see p. 131),	1 1	Dr. Thomas Barr.
Throat and Nose,	4 p.m., Th. (University), 4 p.m., Tues. or Friday. (Western Infirmary),	1 1	J. Walker Downie, M.B.

IV.—LAW.

Winter Session, 1909-10.

Classes.	*Hours.*	*Class Fees.*	
Scots Law,	8 a.m.,	£4 4[1]	Prof. Gloag.
Civil Law,	8 a.m.,	4 4[1]	———
Conveyancing,	8 a.m.,	4 4[1]	Prof. Moir.
Constitutional Law and History,	4.30 p.m.,	4 4[1]	Dr. W. S. M'Kechnie.
——— (*Half Course*),		3 3	
Mercantile Law,	5.30 p.m.,	4 4[1]	Mr. T. G. Wright.
——— (*Half Course*),		3 3	
Public International Law,	5.30 p.m., Mon., Wed., Fri.,	3 3	Mr. A. H. Charteris.
International Private Law (in Summer),			
Jurisprudence, General or Comparative,	4.30 p.m., Mon., Wed., Fri.,	3 3	Mr. Jas. A. M'Callum.
Political Economy,	2 p.m.,	4 4[1]	Prof. Smart.
Forensic Medicine,	9 a.m. (Jan.),	4 4[1]	Prof. Glaister.

Summer Session, 1910.

Classes.	*Hours.*	*Class Fees.*	
Evidence and Procedure,	8.45 a.m.,	£3 3	Mr. R. Lamond.
International Private Law,	8.45 a.m.,	3 3	Mr. A. H. Charteris.

---

[1] Fee for a second or subsequent session, £3 3s.

[2] After first Lecture, the Class will meet in divisions.

[3] The fee covers the whole course, viz.: I. In summer, Practical Histology; II. In winter Practical General Physiology (Oct.-Dec.) and Practical Chemical Physiology (Jan.-March) Students should take Practical Histology before attending the winter *Systematic* Class Students who have already attended the Practical Physiology Course may enrol for £1 1s. i any one of the three sections.

V.—THEOLOGY.

MONDAY, 11TH OCTOBER, 1909.

Classes.	*Hours.*	*Class Fees.*		
vinity, Junior, . .	11 a.m., ...	£3	3	PROF. REID.
—— Senior, . .	12 noon, ...	3	3	
brew, Junior, . . .	10 a.m., ...	3	3	PROF. STEVENSON
——Senior, . . .	11 a.m., ...	3	3	
riac, ...	9 a.m., twice weekly,	2	2[1]	
abic, ...	(see p. 153), . .	2	2[1]	Mr T. H. Weir.
clesiastical History, Junior,	12 noon, ...	3	3	PROF. COOPER.
—— Senior,	11 a.m., ...	3	3	
blical Criticism, . .	10 a.m., ...	3	3	PROF. STEWART.
w Testament Greek, . .	9 a.m., Mon., Wed., Fri.,	2	2	

For Students who are attending, or have attended the Hebrew Class, the Fee is £1 1s.

In addition to the University Courses, the following Hospitals and Dispensaries afford ample means for Practical Instruction in the various departments of Medicine and Surgery :—

WESTERN INFIRMARY.—This Hospital contains 595 beds for medical and surgical patients, including Wards for Skin Diseases, and two for diseases peculiar to females. *Physicians*—Prof. Samson Gemmell, M.D. ; Prof. Ralph Stockman, M.D. ; William MacLennan, M.B., C.M. *Honorary Consulting Physician*—Gavin P. Tennent, M.D. *Gynaecologists*—Professor Murdoch Cameron, M.D. ; J. M. M. Kerr, M.D. *Assistant Physicians*—R. B. Ness, M.B. ; William R. Jack, M.D. ; James Carslaw, M.A., M.B., C.M. ; John S. M'Kendrick, M.D. *Surgeons*—Professor Sir Hector C. Cameron, M.D.; Professor Sir William Macewen, M.D., LL.D., F.R.S. ; J. C. Renton, M.D. ; Sir George T. Beatson, K.C.B., M.D. ; T. K. Dalziel, M.B. ; James H. Nicoll, M.B. *Honorary Consulting Gynaecologist*—W. L. Reid, M.D. *Honorary Consulting Ophthalmic Surgeon*—T. Reid, M.D., LL.D. *Assistant Surgeons*—Duncan Macartney, M.D. ; Robert Kennedy, M.A., D.Sc., M.D. ; Alfred A. Young, M.A., M.B. ; George Burnside Buchanan, B.A. (Cantab.), M.B., C.M. ; John Morton, M.B. ; Geo. H. Edington, M.D. *Dispensary Physicians*—Robert Fullarton, M.A., M.B., Ch.B. ; James C. M'Clure, M.B., C.M. ; John Gracie, M.B., Ch.B.; Frank J. Charteris, M.B., Ch.B. ; Alexander B. Sloan, M.D., Ch.B. ; Leonard Findlay, M.D. *Extra Dispensary Physicians*—John P.

Duncan, B.Sc., M.B., Ch.B.; M. R. Taylor, M.B., Ch.B.; George A. Allan, M.B., Ch.B.; J. R. C. Greenlees, M.B., B.C.; George H. Clark, M.B., Ch.B.; Daniel R. Kilpatrick, M.B., Ch.B. *Dispensary Gynaecologists*—Samuel J. Cameron, M.B., Ch.B.; David Dickie, M.B., F.R.C.S. *Dispensary Surgeons*—Alexander MacLennan, M.B., C.M.; Archibald Young, B.Sc., M.B., C.M.; M. Logan Taylor, M.B., Ch.B.; W. W. Christie, M.D., C.M.; C. C. Cuthbert, M.A., M.D., Ch.B. *Extra Dispensary Surgeons*—A. H. Edwards, M.B., C.M.; Robert B. Carslaw, M.A., M.B., Ch.B.; William Rankin, M.A., M.B., Ch.B.; J. M. Renton, M.B., Ch.B. *Anaesthetists*—James P. Boyd, M.B.; R. Home Henderson, M.D.; A. Dingwall Kennedy, M.B., Ch.B.; J. W. Renton, M.B., Ch.B.; James King Patrick, M.B., Ch.B. *Consulting Medical Electrician*—D. J. Mackintosh, M.B., M.V.O. *Medical Electricians*—J. G. Tomkinson, M.D.; Archibald Hay, M.A., M.D.; W. F. Somerville, M.A., B.Sc., M.D. *Dispensary Surgeon for Diseases of the Ear*—Thomas Barr, M.D. *Assistant Dispensary Surgeon for Diseases of the Ear*—J. Stoddart Barr, M.B., Ch.B. *Honorary Consulting Physician for Mental Disorders*—L. R. Oswald, M.B., C.M. *Dispensary Surgeon for Diseases of the Throat and Nose*—J. Walker Downie, M.B. *Surgeon Dentist*—W. D. Woodburn, L.D.S. *Pathologist*—Professor Robert Muir, M.D. *Assistant Pathologist*—John S. Dunn, M.A., M.B., Ch.B. *Vaccinator*—John W. Nicol, M.B. *Medical Superintendent*—Donald J. Mackintosh, M.B., M.V.O. *Matron*—Miss Helen Gregory Smith. *Secretary and Treasurer*—Henry Johnston, 87 Union Street. The hour of visit is 9 A.M. The Dispensary for Out-Patients is open daily at 2 P.M. Vaccination—Mondays and Thursdays at 12 noon. The station is recognized by the Local Government Board. Fee, £1 1s. It is recommended that when practicable students should attend the vaccination course during the winter session.

According to the present arrangement admission to the practice of this Infirmary is subject to the following regulations:—

1. No student shall be permitted to attend the Infirmary without a Ticket duly signed by the Superintendent.

2. The Fees payable shall be as follows:—

(*a*) Every Student shall pay a fee of £10 10s. for Hospital attendance, and this shall be kept quite separate from the Fees for Clinical Instruction.

(*b*) Every Student shall pay £3 3s. for each Winter Session and £2 2s. for each Summer Session of Clinical Instruction.

(*c*) Students who have completed their Clinical Course elsewhere shall be permitted to enter for a six months' course of the *Hospital only*, on payment of a fee of £2 2s.

(*d*) There shall be two Courses of Clinical instruction, the first extending from the beginning of November to April, and the second from the beginning of May to July.

(*e*) At the beginning of each Course the Student shall give intimation to the Superintendent of the Clinical Teacher whose course he wishes to attend, by filling up a form which will be supplied on application to the Superintendent.

3. The fees shall be paid to the Superintendent, who shall give each Student a Ticket of Admission to the Lectures of the Physicians or Surgeons he wishes to attend. He shall also hand to each of the Clinical Lecturers a list of the Students who have taken out Tickets for their respective Courses.

GLASGOW ROYAL INFIRMARY.—Number of beds, 588. Special wards are set aside for the treatment of Venereal Diseases, Diseases of Women, Diseases of the Throat and Nose, and special beds for Diseases of the Ear. *Physicians*—George S. Middleton, M.A., M.D.; Thomas Kirkpatrick Monro, M.A., M.D.; Walter K. Hunter, M.D., D.Sc.; John M. Cowan, M.D., D.Sc.; J. B. Mackenzie Anderson, M.A., M.B. *Surgeons*—John Barlow, M.D.; James Alexander Adams, M.D.; David Newman, M.D.; Quintin M'Lennan, M.B.; James Hogarth Pringle, M.B.; Henry Rutherfurd, M.A., M.B.; Peter Paterson, M.B. *Assistant Physicians*—David M'Crorie, L.R.C.P.; John Henderson, M.D.; Campbell S. Marshall, M.D.; James Scott, M.A., M.B., Ch.B.; John Thomson Maclachlan, M.D.; A. W. Harrington, M.D. *Extra Assistant Physicians*—D. H. Macphail, M.B., Ch.B.; W. H. Brown, M.D. *Assistant Surgeons*—A. N. McGregor, M.D.; John Patrick, M.B.; A. G. Faulds, M.B.; John A. C. Macewen, B.Sc., M.B.; Thomas Kay, M.B.; Robert Ramsey, M.B., Ch.B. *Extra Assistant Surgeons*—James Battersby, F.R.C.S. (Eng.); Donald Duff, F.R.C.S. (Edin.); Spencer Mort, M.B., Ch.B. *Diseases of Women*—G. Balfour Marshall, M.D. *Consulting Surgeon for Diseases of the Eye*—A. Maitland Ramsay, M.D. *Diseases of the Throat and Nose*—John Macintyre, M.B. *Pathologist and Curator* *of Museum*—John H. Teacher, M.A., M.D. *Assistant Pathologist*—A. M. Kennedy, M.B., Ch.B. *Anaesthetists*—John Donald, M.D., and Robert Bruce, M.B., Ch.B. The hour of visit is 9 A.M. The hours at the dispensary for out-patients are as follows:—*Diseases of the Ear*—James Kerr Love, M.D. 3.30 P.M., Tuesday and Friday. *Diseases of the Throat and Nose*—R. Fullerton, M.D. 11 A.M., Tuesday and Friday. *Diseases of the Eye*—J. Rowan, M.B.; and H. W. Thomson, M.D. 11 A.M., Monday, Wednesday, and Friday. *Diseases of the Skin*—Alexander Morton, M.A., M.D. 11 A.M., Monday, Wednesday, and Friday. *Gynaecologists*—Peter M'Bryde, M.B., C.M.; W. D. Macfarlane, jun., M.B., C.M. 11.30 A.M., daily. *Diseases of the Teeth*—William Taylor, L.D.S. 3.30 P.M., Monday, Wednesday, and Friday. *Vaccination*—Hugh H. Borland, M.B., D.P.H., 12 NOON, Monday and Thursday. The station is recognized by the Local Government Board.

The Electric Pavilion contains all the most recent apparatus for the diagnosis and treatment of disease by Electricity. *Consulting Electrician*—John Macintyre, M.B. *Medical Electrician*—James R. Riddell, L.R.C.P. etc. *Assistant Medical Electricians*—Samuel Capie, M.B.; Katharine M. Chapman, L.R.C.P. Ed.; Janie S. MacLachlan, M.B., Ch.B. *Bacteriologist*—David M'Crorie, L.R.C.P. *Assistant Bacteriologist*—J. Archibald Campbell, L.R.C.P.S. *Extra Assistant Bacteriologist*—Elizabeth T. Fraser, M.D.

Fees, which include Hospital Practice and the Clinical Lectures, for one year £10 10s., six months £6 6s., three months £4 4s. The total fee is £21. Vaccination £1 1s. The whole Vaccination fee and two-thirds of these fees will be paid by the Carnegie Trust for students who fulfil the conditions of the Trust. *Superintendent*—J. Maxtone Thom, M.B., D.P.H. *Matron*—Miss J. Melrose. *Secretary*—Peter Rintoul, C.A., 212 West George Street.

EYE INFIRMARY, 174 Berkeley Street and 80 Charlotte Street.—Hour of Visit, 1 P.M. daily. Fee for six months, £1 1s.; for twelve months, £2 2s.

OPHTHALMIC INSTITUTION, 126 West Regent Street.—Hour of Visit, 2 P.M. Fee for a qualifying course, £1 1s.

INSANITY.—During the Summer Session Dr. Oswald gives in the University a Course of Lectures on Insanity at 12 noon on Wednesdays, and Clinical Instruction at the Glasgow Royal Asylum, Gartnavel, at 10 A.M. on Saturdays. Fee for the combined Course, £2 2s.

At Gartloch Asylum, Gartcosh, Senior Medical Students may obtain appointments as Resident Clinical Clerks. These appointments are made in April and October for six months. Board and lodging with railway fare to and from Glasgow are allowed, and Classes can be attended in Glasgow in the earlier part of the day. Application should be made to the Medical Superintendent, W. A. Parker, M.B., considerably in advance.

Clinical Instruction in Fevers is given at the Ruchill Hospital and the Belvidere Hospital. Fee for a course extending over ten weeks, once a week, £1 1s. Apply to Mr. James D. Borthwick, 285 George Street, Glasgow.

There are also Hospitals for Diseases of the Skin and Ear.

FACULTIES IN THE UNIVERSITY.

The whole classes of the University are arranged in five Faculties—Arts, Science, Medicine, Law, and Divinity.

I.—FACULTY OF ARTS.

The Faculty of Arts comprehends four Departments of study, viz.:—A. *Language and Literature*, embracing the classes of Humanity, Greek, English, French, German, Italian, Celtic, Hebrew and Semitic Languages; B. *Mental Philosophy*, comprising Logic and Metaphysics, Moral Philosophy, Political Economy, Education; C. *Science*, including Mathematics, Natural Philosophy, Astronomy, Chemistry, Zoology, Botany, Geology, Geography; D. *History and Law*, containing History, Constitutional Law and History, Roman Law.

A. LANGUAGE AND LITERATURE.

I. HUMANITY.

The original foundation of this Professorship is not extant; but it appears from the records of the College that it must have been instituted previous to the year 1637. The Professor is elected by the University Court.

Professors from the year 1706.

1706. Andrew Rosse.
1735. George Rosse.
1754. George Muirhead.
1773. Wm. Richardson, M.A.
1815. Josiah Walker, M.A.
1831. William Ramsay, M.A.
1863. George G. Ramsay, M.A., LL.D., Litt.D.
1906. John Swinnerton Phillimore, M.A.

The Humanity Class consists of three classes—the *Ordinary*, the *Intermediate*, and the *Honours Class*, which latter two classes all members of the Ordinary Class have the option of attending. Students who do not require a Public Certificate for the Degree or other purpose may attend any class as Private Students. Private Students are those who attend the class without taking part in the class work.

In all classes the students prepare certain work prescribed, and are liable to be examined orally every day. In the Honours Class the business is conducted partially by oral examination, but mainly by Lectures and Prelections delivered by the Professor. Exercises in Latin Prose make part of the class-work; *Unseens* are set from time to time, and Latin Verse Composition is taught to those that desire it.

ORDINARY CLASS.

The Ordinary Class meets daily at 9 a.m. Special arrangements will be made for the division of the class into sections for the teaching of Latin Prose. All students attending the Ordinary Class have the option also of attending the Honours Class from 11 a.m. to 12 noon, or the Intermediate Class from 1 to 2 p.m.

INTERMEDIATE CLASS, 1 P.M.

This class is for those who take a Double Course (Intensive) and are examined on the Higher Standard for the Ordinary Degree. Students commencing in Honours also attend this class, in which chiefly prescribed Degree work is read. Honours Students of the Second Year and Ordinary Students are free to attend at 1 p.m. if they like. Students commencing in Honours are free to attend also at 11 a.m.

HONOURS CLASS, 11 A.M.

In this class more advanced work is read.

Students are allowed to attend as Private Students, *i.e.* as listeners only, without doing any of the work of the class; but in that case they do not receive tickets qualifying for the Degree. The class also meets in small sections for Private Readings.

Honours Students, wishing to do Latin Prose for the Degree or other purposes, may attend for Latin Prose only.

A course of five sessions may embrace Lectures and Prelections on Plautus—Terence—Lucretius—Catullus—Propertius—Virgil—Persius—Statius—Juvenal—Martial—Tacitus—Quintilian—Cicero's Oratorical and Philosophical works, etc.

The subjects for the Session 1909-10 will be as follows:—

1. ORDINARY CLASS, AT 9 A.M.—Terence, *Hecyra* and *Phormio*; Cicero, *Oratt. Verrin., Act II., lib. iv. (de Signis)*; Virgil, *Georgics*, i., ii.; Varro, *Rer. Rusticarum*, lib. iii.; History of Literature, Antiquities, Grammar, and Prosody; Lectures on Roman History.

2. INTERMEDIATE CLASS, at 1 P.M.—Plautus, *Captivi*; Cicero, *Tusculan Disputations*; Propertius, iii., iv.

3. HONOURS CLASS, AT 11 A.M.—Ovid, *Metamorphoses*; Lectures on Horace, *Ars Poetica*; Quintilian, *Instit. Oratoria*.

II. GREEK.

This Professorship was founded by the College in or about the year 1581. The Professor is elected by the University Court.

Professors from the year 1704.

1704. A. Dunlop, LL.D.
1746. James Moor, LL.D.
1774. John Young, M.A.
1821. Sir Daniel K. Sandford, M.A.
1838. Edmund L. Lushington, LL.D.
1875. R. C. Jebb, D.C.L., Litt.D., LL.D.
1889. G. G. A. Murray, M.A., LL.D.
1899. John S. Phillimore, M.A.
1906. GILBERT A. DAVIES, M.A.

The Greek Class consists of two divisions, the Ordinary and the Honours. Students not requiring a Public Certificate may attend as Private Students, *i.e.* without doing the work of the class.

All students should possess the following books:—*Ancient Atlas* (the Atlas in *Everyman's Library*, published by Dent, is cheap and handy); *Greek Lexicon*, Liddell & Scott (large or intermediate edition—the small edition is not sufficient); some History or Primer of Greek Literature; *First Greek Grammar*, Rutherford (with Greek Moods and Tenses); Goodwin, for Honours work.

Senior students are recommended to get Gow's *Companion to the School Classics*, and Seyffert's *Dictionary of Classical Antiquities, etc.*, translated by Nettleship and Sandys; or, in place of Seyffert, Smith's two small volumes, the *Classical Dictionary* and the *Dictionary of Antiquities.*

ORDINARY CLASS.

This is the ordinary qualifying class for graduation; all members of it must have passed the Preliminary Examination in Greek on the higher standard, or an equivalent examination.

All students requiring a certificate of attendance must duly perform the work of the class; but those who do not require a certificate, or those who have not passed the Preliminary Examination, may attend as Private Students, *i.e.* without doing the work.

The class meets at 8 A.M. every week-day except Saturday.

The class hour is chiefly occupied by the Professor's lectures, but the class is liable to be examined orally or on paper every day. The work done includes the reading of Greek Authors; Greek Prose Composition; Written Exercises in translation; Greek History, Language, Antiquities, and Literature.

Students who intend to take Greek as a two-year subject should consult the Professor at the end of their first year as to their further course of study. They will in general attend the Ordinary Class during the second year.

HONOURS CLASS.

The Honours Class meets at 12 noon every week-day except Saturday. Members of the Ordinary Class are at liberty to attend; they are not recommended to attempt the work of the class except in so far as it suits their convenience. The Class consists of two divisions, viz.: First year's students (*i.e.* those who are seeking the certificate with a view to graduate with Honours, and doing the full work of the class), and Private students who have already been through the class. These may follow the class work, but arrangements will be made for more advanced teaching for them, either individually or in small voluntary groups.

The work is similar to that done in the Ordinary Class, but more advanced, greater attention being given to the History of Literature, Philology, Criticism, and Philosophy.

Subjects for Session 1909-10.

ORDINARY CLASS.—Demosthenes, *Against Leptines*; Euripides, *Iphigenia in Tauris*; Herodotus ix and (if time permits) Homer, *Odyssey*, xxi., xxii. Greek Grammar and Literature; Written Translations and Prose Composition.

HONOURS CLASS.—Aeschylus, *Supplices*; Plutarch, *Lives of Themistocles, Pericles, and Alcibiades*; Aristotle, *Ethics*, i., ii.; Homer, *Iliad* i. xii. (selections).

Translations, Essays, Prose Composition.

Written Translations and Prose Composition.

Students will be given Private Hours for Prose.

A voluntary class for Greek Verse will be formed.

A Private reading class or classes will be arranged (voluntary).

III. ENGLISH LANGUAGE AND LITERATURE.

This Chair was founded by Ordinance of the Universities Commission (1858) of date 25th November, 1861, and is in the gift of the Crown.

Professors.

1862. John Nichol, LL.D.
1889. Andrew Cecil Bradley, M.A., LL.D.
1900. W. A. Raleigh, M.A.
1904. W. MACNEILE DIXON, M.A., Litt.D.

N.B. *Students are strongly advised to take the English Literature Class, as has hitherto been the custom. in the later part of their Course. Those who, for special reasons, desire to take it early should consult the Professor before taking out their class-tickets.*

ORDINARY CLASS.—During session 1909-10 the class will meet on Mondays, Tuesdays, Wednesdays, and Thursdays, at 11 A.M.

Lectures will be given on the following subjects:—1, Literary Theory; 2, Shakespere, Milton; 3, The Mediaeval Revival;

4, The French Revolution in English Literature; 5, The History of the English Language.

The following texts are prescribed for the Degree Examination:—Chaucer, *Prologue*; Shakespere, *Macbeth*, *Henry IV.*, parts 1 and 2; Wordsworth, *Resolution and Independence*, *Laodamia*, *Michael*, *Tintern Abbey*; Shelley, *Adonais*; Byron, *Childe Harold*, cantos iii., iv.; Keats, *Eve of St. Agnes*, *Eve of St. Mark*; Coleridge, *Ancient Mariner*, *Christabel*; Palgrave, *Golden Treasury*, Books II. and III.

Students who have already taken the Ordinary Class are permitted to attend the Lectures on three days a week for a Fee of £2 2s. Such attendance cannot be reckoned towards graduation.

Honours Class.—The class meets daily at 12 noon; on Mondays and Wednesdays for the study of special authors and of selected subjects connected with the history of English Literature (1350-1900); on Tuesdays and Thursdays for the study of Anglo-Saxon and Middle English.

British History Class for Honours in English.—See p. 93.

Degree Examinations.—The subjects for these in October, 1909, and in May and October, 1910, will be found on p. 242. Students are advised to present themselves for their examination in the May or October immediately following their attendance of the Ordinary Class, as the subjects studied in class will be changed from year to year.

N.B.—Students who wish to take their Degree with two courses in English will be permitted (after consultation with the Professor and until further notice) to take either the Ordinary Class for a second session or the Honours Class as Intermediate students.

IV. FRENCH LANGUAGE AND LITERATURE.

This Lectureship was instituted by the University in 1895.

Lecturers.

1895. Alfred Mercier, L. ès L.
1898. Charles Martin, M.A. (Paris), O.A.
Assistant—Léon M. Pitoy, M.A. (Paris).

I. Ordinary Class.—This Class meets at 12 noon on Tuesdays, Wednesdays, Thursdays, and Fridays. *It is for the most part conducted in French.*

The work of the class will comprise the following subjects:

Literature.—(*a*) A course of lectures on "La Société, l'idéal classique et les lettres françaises au xvii^e siècle." Etude particulière des œuvres suivantes: Corneille, *Le Cid.* Racine, *Andromaque.* Molière, *Les Précieuses ridicules*; *Le Misanthrope.* Boileau, *Art poétique*, chant iii. La Bruyère, *Les Caractères* (Edition Servois et Rébelliau, Hachette).

(*b*) A course of lectures on "La poesie romantique." Etude particulière des poésies de Victor Hugo (Extraits Delagrave).

(*c*) Explication des Pages choisies de Buffon (Edition A. Colin), et des Extraits des Historiens français du xix^e siècle (Edition Jullian, Hachette).

Language.—(*a*) Explication des textes indiques ci dessus.

(*b*) Leçons sur la langue française au xvii^e siècle.

(*c*) Etude de quelques questions de grammaire pratique ou historique.

Cf. Darmesteter, *Grammaire historique* (Morphologie et Syntaxe).

(*d*) Thèmes. Compositions françaises. Exercices pratiques.

II. HONOURS CLASS.—This Class meets three times a week at 11 A.M.

A. Etude générale du xvi^e siècle et de la Renaissance française (suite): La Pléiade.

Explication de textes: Pellissier. Extraits des poètes français du xvi^e siècle (Delagrave).

B. Etude génerale de la Comédie de Molière.

Explication particulière du *Tartuffe* et de la Critique de *l'Ecole des Femmes.*

C. Leçons sur Montaigne (*Essais*, Edition Jeanroy, Hachette). Pascal (*Pensées*, Edition Brunschvicg, Hachette). Montesquieu (Extraits Hachette).

D. Les étapes du roman français au xix^e siècle.

E. Lecture avec commentaires philologiques et littéraires de la *Chanson de Roland* (Edition Gaston Paris, Hachette) et de la *Chrestomathie du Moyen-Age* (même collection).

F. Thèmes et Compositions françaises.

Exposé de quelques questions de grammaire historique, de sémantique et de lexicologie.

Cf. Darmesteter, *Grammaire historique.* Brunot, *Histoire de la langue française.*

III. During Session 1909-10, Students who wish to take the French Language and Literature as an *intensive* subject will attend the Ordinary or the Honours Class, or part the Ordinary and part the Honours Class, after consulting the Lecturer.

N.B.—Tutorial Classes meet frequently for the study of texts, the correction of exercises, reading, and conversation on the subject of the class lectures; they form part of the regular course of instruction in French.

A class library provided with books of reference is open to the students from 9 a.m. till 5 p.m.

Private Students may attend the lectures of the Honours Class or those of the Ordinary Class. The fee for the Literature *or* the Language Lectures in the Ordinary Class is £2 2s.

V. GERMAN LANGUAGE AND LITERATURE.

This Lectureship was instituted by the University in 1899.

Lecturers.

1899. Alexander Tille, Ph.D.
1900. George P. Thistlethwaite, B.A., Ph.D.
1907. HERBERT SMITH, M.A., Ph.D.

I. ORDINARY CLASS.—The German Ordinary Class meets at 10 a.m. in the Conveyancing Class Room, and the course qualifies for graduation in Arts. Students who do not intend to graduate may take either the Literature class or the Language class alone. The work will be done in German, as soon as the students are sufficiently advanced for it. The fee for one class is £2 2s.

A. *Language.*—Lectures on composition, on pronunciation, and on the history of the language. Reading of parts of the following: Goethe, *Dichtung und Wahrheit* (I.-IV.); Arnim-Brentano, *Des Knaben Wunderhorn*; Grillparzer, *Des Meeres und der Liebe Wellen.*

Weekly exercises in composition will be set, for which Buchheim's *Materials for German Prose Composition* (large edition) will be used.

For private reading: Schiller's Dramas.

B. *Literature.*—German Literature in the 19th century.

Women students have the option of attending this Class.

TUTORIAL CLASSES.—*The students are divided into small groups for the practice of conversation and pronunciation.*

II. INTERMEDIATE CLASS.—Students taking German for a econd year will be permitted (after consultation with the Lecturer and until further notice) either to take the Ordinary Class over again or to enter the Honours Class.

III. HONOURS CLASS.—This class will meet three or four imes a week at 9 a.m.

The following subjects will be treated:

1. Historical German Grammar.
2. The Romantic Period in German Literature.
3. Old High German and Middle High German Grammar, with interpretation of texts from *Althochdeutsche Literatur* Schauffler); Hartmann, *Der arme Heinrich*, *Kudrun*,—all in he Sammlung Göschen.
4. Reading of Schiller's Dramas (Junior Honours), and 19th century classics (Senior Honours).
5. Prose Composition. Essays.

Tutorial Classes will also be held for the practice of conversation and the correction of essays and exercises.

Text-books (in addition to those already mentioned): Weise, *Unsere Muttersprache*; Behagel, *Die deutsche Sprache*; Kluge, *Geschichte der deutschen National-Litteratur*; Scherer, *Geschichte der deutschen Literatur*; Kummer, *Deutsche Literatur des 19. Jahrhunderts*; Meyer, *Deutsche Literatur im 19. Jahrhundert*; Haym, *Die romantische Schule*; Huch, *Die Romantik*; Walzel, *Deutsche Romantik*.

VI. ITALIAN LANGUAGE AND LITERATURE.

This Lectureship was instituted by the University Court in 1902.

Lecturer—SIGNOR FERNANDO AGNOLETTI, D.Litt.

ORDINARY CLASS.—This Class, qualifying for graduation, will meet on Mondays, Wednesdays, and Fridays, at 4 p.m., in the Law Class Room.

Literature (Mondays and alternate Fridays). The age and works of the Chroniclers and Historians from the XIV. to the XVI. century inclusive. The Literature of the XVI. century in Italy: Poemi, Prosa d'arte, Biografie.

Books: Machiavelli, *Il Principe* (Sansoni, Firenze); Castiglione, *Il Cortegiano* (Sansoni, Firenze); Ariosto, *Orlando Furioso*; Tasso, *Gerusalemme Liberata*; Vasari, *Vite.*

Language. Exercizi di Morfologia e Sintassi. Storia della pronuncia.

Books: Stoppato, *Fonologia Italiana* (Milano); Cellini, *Autobiografia* (Sansoni, Firenze); Leopardi, *Prose* (Sonzogno, Milano); Charles Lamb, *Tales from Shakespeare.*

Students who do not intend to graduate may attend the Language Class alone or the Literature class alone. Fee for one of them, £2 2s.

HONOURS CLASS.—This class will meet on Tuesdays and Thursdays, at 11 a.m., in the Law Class Room.

Lectures on Historical Grammar. The sublime poets of Italy. History of Florence and Venice. Old Texts.

Books: Dante, *Inferno*; Leopardi, *I Canti*; Pascoli, *Poemi Conviviali*; Gino Capponi, *Storia di Firenze*; Gorra, *Morfologia Italiana*; Monaci, *Crestomazia Italiana.*

An Elementary Class may meet on Wednesdays and Fridays during the first twenty weeks of the Session for the convenience of graduating and non-graduating students. Language and Literature up to the Preliminary Standard.

The classes are open to both men and women.

VII. HEBREW.

(See under Faculty of Theology, p. 151.)

VIII. ARABIC.

(See under Faculty of Theology, p. 152.)

IX. CELTIC.

The late Rev. Archibald Keily M'Callum, LL.D., by his holograph will, dated 8th March, 1881, to which were attached three codicils (the last dated 27th January, 1892), directed his Trustees, among other purposes, to devote an annual sum to a Lectureship, or a course of not fewer than fifteen Lectures, on Celtic Literature. He left detailed directions as to certain subjects which were to be among those discussed. The Lecturer was to be appointed by the University Court for a period of three years, and was to be eligible for re-election after a subsequent appointment for three years had been made. Matriculated students and others might attend the Lectures. Dr. M'Callum also directed that his library should be handed over to the University as a nucleus for a Celtic Library for the use of the Lecturers and such students as might attend the Lectures, and any others interested in Celtic Literature. The Library was to be kept separate and designated "The Celtic Lectureship Library," and the sum of £10 to be annually expended in making additions thereto.

Lecturers—1900. Professor Magnus Maclean, D.Sc.
1903. Professor Kuno Meyer, Ph.D.

This lectureship was placed on a new footing by a Provisional Order made by His Majesty's Secretary for Scotland under the provisions of the Private Legislation Procedure (Scotland) Act, 1899, and confirmed by Parliament on 4th August, 1905, by the Glasgow University Order Confirmation Act, 1905.

Lecturer—1906. GEORGE HENDERSON, M.A., Ph.D.

The course now qualifies for graduation in Arts. Any student who attends with a view to this must previously have passed a Preliminary Examination in Scottish or Irish Gaelic, or in Welsh, including translations from and into English, with grammatical, literary, and philological questions.

The course for 1909-1910 will embrace :—

A. Language. The Principles of Celtic Philology, Phonology, Grammar of the Gaelic Language; Introduction to Old Irish, Windisch's Irish Grammar (trans. by Moore); Strachan's *Paradigms* and *Selections from the Old Irish Glosses*; Vendryes *Grammaire du Vieil-Irlandais.*

B. Literature. Windisch's *Irische Texte mit Worterbuch.* Selections from the *Tāin Bō Cūalnge* and other leading texts of Old Gaelic Saga. The Early Gaelic Life of *Columcille. The Fate of the Children of Lir* and *The Pursuit of Diarmud and Grainne* (Gill & Son, Dublin). Cameron's *Reliquiae Celticae*, Vol. II. Meyer's *Early Irish Texts*; Leigheas *Cois' O'Céin* (ed. Henderson). *The Death-Tales of the Ulster Heroes*, by Kuno Meyer (Todd Lecture Series, Royal Irish Academy). Selections from the standard literature of the modern period of Scottish Gaelic, as in Mackenzie's *Beauties of Gaelic Poetry*; the M'Callum Lectures on the Literature of the Highlands; and the Literature of the Celts, by Professor Magnus MacLean.

C. Palaeography. Readings from Facsimiles of Old Gaelic Texts.

The class meets daily at 4 p.m.

B. MENTAL PHILOSOPHY.

I. LOGIC AND RHETORIC.

This Professorship is one of those founded in the charter of *Nova Erectio* in 1577. The Professor is elected by the University Court.

Professors from the year 1727.

1727.	John Loudon.	1827[2].	Robert Buchanan, LL.D.
1751.	Adam Smith, LL.D.	1864.	John Veitch, LL.D.
1752.	James Clow.	1895.	Robert Adamson, LL.D.
1787[1].	George Jardine, M.A.	1902.	Robert Latta, D.Phil.

The Logic Class meets on three or four days of the week, from 9 to 10 A.M.

The Course of Lectures includes the following subjects:—

I. Logic.—The Principles of Deductive and Inductive Logic. Special reference will be made to Mill's *Logic*, Books I., II., and III.

II. Psychology.—A general account of the composition and development of Mind, with a more detailed consideration of the process of knowledge.

III. Metaphysics.—An introduction, historical and critical, to the general questions of Modern Philosophy. The historical reference will concern mainly the doctrines of Descartes, Locke, Berkeley, and Hume.

Students before entering the class are recommended to read some elementary work on Formal Logic, such as Jevons' *Elementary Lessons in Logic*, Fowler's *Deductive Logic*, or Mellone's *Introductory Text-book of Logic*, and also some elementary book on Psychology, such as Stout's *Groundwork of Psychology*.

An advanced class is held in which lectures are given on some of the subjects prescribed for Honours in Mental Philosophy. During next session this class will meet at 11 A.M., on three or four days weekly.

Students before entering the honours class are recommended to read (1) the sections on pre-Kantian philosophy in any history of Modern Philosophy, *e.g.* Höffding, Falckenberg, Erdmann, or Adamson, and (2) Some history of Greek Philosophy (period before Plato), as Zeller, Burnet, Erdmann, or Gomperz. Janet and Séaille's *History of the Problems of Philosophy* should also be consulted.

---

[1] Mr. Jardine was assistant and successor to Mr. Clow from 2nd June, 1774.

[2] Mr. Buchanan was assistant and successor to Mr. Jardine from 1st October, 1824.

Students who desire to take a second course, qualifying for the Ordinary M.A. Degree, in the Department of Logic, may attend either the advanced class or a class in Psychology conducted by the Lecturer in Psychology.

EXPERIMENTAL PSYCHOLOGY.

Lecturer—1908. HENRY J. WATT, M.A., Ph.D.

The course in Experimental Psychology will be specially adapted to the interests of students of Philosophy. It will deal more closely with the analysis of experience, representation, memory, action and mental activity, ideation, feeling and experimental aesthetics, sense-experience, perception, etc.

Opportunity will be given for experimental observation, as far as possible, in the treatment of all questions in the course.

The class meets for two consecutive hours twice a week during the session.

Text-books—E. B. Titchener, *Experimental Psychology*, Vol. I., Part I.; C. S. Myers, *Text book of Experimental Psychology*.

II. MORAL PHILOSOPHY.

This Professorship was founded by the charter of *Nova Erectio* in 1577. The Professor is elected by the University Court.

Professors from the year 1727.

1727. Gershom Carmichael.
1730. F. Hutcheson, LL.D.
1746. Thomas Craigie.
1752. Adam Smith, LL.D.
1764. Thomas Reid, D.D.
1796[1]. Archd. Arthur, M.A.
1797. James Mylne, M.A.
1839. William Fleming, D.D.
1866. Edward Caird, D.C.L. LL.D.
1894. HENRY JONES, LL.D., F.B.A.

N.B.—No student, who is proceeding to a degree, shall be allowed to attend the class of Moral Philosophy during the first session of his or her course, except by the express permission of the Professor.

The Moral Philosophy Class meets at 8 A.M.

In this class Moral Philosophy is treated both historically and systematically. In connection with the systematic part of the course lectures are given on the metaphysical and psychological implications of Morals, and in connection with the historical part the development of Morals is traced, and an account given of some of the main ethical theories of ancient and modern times.

---

[1] Mr Arthur was assistant and successor to Dr. Reid from 22nd May, 1780.

The work of the class will further comprise the study of Plato's *Republic* and Green's *Prolegomena to Ethics.*

Students taking Moral Philosophy as a second course for the purpose of ordinary graduation, under the regulations for the Five or Six Subjects Degree, will attend the Higher Moral Philosophy Class.

In the Higher Moral Philosophy Class the Professor will lecture on some of the subjects prescribed for the Degree with Honours.

During next session this class will meet at 12 noon.

EDWARD CAIRD LECTURESHIP IN POLITICAL PHILOSOPHY.

Lecturer—Robert A. Duff, D.Phil.

This Class is intended to meet the requirements, in this subject, of students preparing for the Degree of M.A. with Honours in *Mental Philosophy*, or in *Economic Science*, and for the Examinations of the Civil Service in Political Science. Under the New Regulations for graduation a combined course in Political Philosophy and Social Economics will count as a qualifying second year course for students who have already attended the Moral Philosophy or the Political Economy Class.

The Course of Lectures will include a discussion of the main theories as to the nature and functions of the State; a critical account of the growth of institutions; and an analysis of the moral principles underlying political rights and obligations. In different years such problems as Criminology and the theory of Punishment, Local and Imperial Government, and Administration will also be dealt with.

Students will be expected to pursue during the Session a course of reading in prescribed portions of books dealing with the subjects treated of in the Lectures, and, in particular, to acquire an accurate knowledge of Aristotle's *Politics*, Burke's *Reflections on the French Revolution*, Green's *Principles of Political Obligation*, and Sidgwick's *Elements of Politics.*

III. POLITICAL ECONOMY.

This Chair (called the Adam Smith Chair of Political Economy) was founded by Ordinance No. 149 of the Universities Commission (1889) of date 25th February, 1896, with an endowment of fifteen thousand pounds sterling, given by Mr. Andrew Stewart, merchant, Glasgow. The patronage is vested in the University Court, conjointly with one representative from time to time elected by the Merchants' House of the City of Glasgow, one representative from time to time elected by the Trades' House of the City of Glasgow, and one representative from time to time elected by the Chamber of Commerce of the City of Glasgow. The professor is a professor in the Faculties of Arts and Law.

Before the founding of the Chair, Political Economy was attached to the Chair of Moral Philosophy till 1892, when a separate lectureship was instituted by the University.

Professor.

1896. William Smart, M.A., D.Phil., LL.D.

Senior Assistant—Thomas Jones, M.A.

The Political Economy Ordinary Class meets at 2 P.M.

The Lectures, which are partly doctrinal, partly historical, are intended to accompany the study of prescribed books. After a short introduction dealing with the evolution of industry since 1815, the first part of the course will deal with Demand and Consumption: the Agents of Production—Land, Labour, Capital, and Organization: Theory of the Equilibrium of Demand and Supply: Value, or Distribution and Exchange: Trade Unions. (Text-books: Marshall, *Elements of Economics of Industry*, third edition, 1899; Smart, *The Distribution of Income.*) Thereafter Money, Credit and Banking, and International Trade will be taken up. (Text-books: Gide, *Political Economy*, Book II.; Smart, *The Return to Protection.*) For preparatory reading students are recommended to Gide's *Political Economy* (Isbister, London, or French edition, 1909, Larose, Paris).

Honours Class. The Class meets at 3 P.M. Subject: Taxation and Public Finance, with some study of the Theory of the State as bearing thereon. Special study will be made of the activities and finance of municipalities, and of current economic problems as they present themselves.

Students are recommended to confine themselves for preparatory reading to mastering Marshall's *Principles of Economics*, Vol. I., Books V. and VI., fifth edition, 1907.

SOCIAL ECONOMICS.

Lecturer—THOMAS JONES, M.A.

This Lectureship, instituted by the University Court in 1908, is intended to assist students who wish to devote special attention to contemporary social problems. The work will be closely associated with that of the classes in Political Economy and Political Philosophy. Students desiring to take a second course in Political Economy or Moral Philosophy may take a combined course of Social Economics and Political Philosophy.

The class will meet two or three times a week at hours to be arranged. During the session 1909-1910 the history and causes of Pauperism and Unemployment will be studied in the light of the Evidence and Reports of the Poor Law Commission, 1909. The following works are recommended for preparatory reading: Fowle, *The Poor Law*; *The Poor Law Commissioners Report of* 1834 (Reprinted 1905, Cd. 2728).

IV. EDUCATION.

This Lectureship was instituted by the University in 1894.

Lecturers.

1894. David Ross, M.A., B.Sc., LL.D.
1899. John Adams, M.A., B.Sc.
1902. John Clark, M.A.
1907. WILLIAM BOYD, M.A., B.Sc.

N.B.—Students are strongly advised to take the Education Class not earlier in their course than either the Logic Class or the Moral Philosophy Class.

The Education Class meets on Monday, Wednesday, and Friday at 4.15 P.M.; the tutorial sections meet on Tuesday and Thursdays at 3 P.M. and at 4.15 P.M. The course consists of eighty lectures, which together with the tutorial work qualify for graduation in Arts.

The Course of Lectures will be as follows:

A. A brief survey of the History of Education up to the Renaissance, to show the modern educational tradition in the making. A special study of the educational doctrine of Plato's *Republic*, I.—VII.

B. The development of modern educational thought and practice with special reference to Pestalozzi, Froebel, Herbart and the Child Study Movement.

In the tutorial Classes the subjects for discussion will centre round Rousseau's *Émile*. For students who read French, the text published by Garnier Frères is recommended; for the others, the translation which appears in the International Education Series is best. If time permit, some present-day teaching problems will be taken up in the Tutorial Classes.

C. SCIENCE.

I. MATHEMATICS.

This Professorship, long suppressed for want of funds, was revived by an Act of Faculty in 1691. The Professor is appointed by the University Court. He is a member of the Faculty of Arts, and also, since 1893, of the Faculty of Science.

Professors from the year 1691.

1691. George Sinclair.
1699. Robert Sinclair, M.D.
1711. Robert Simson, M.D.
1761. James Williamson, D.D.
1796[1]. James Millar, M.A.
1832. James Thomson, LL.D.
1849. Hugh Blackburn, LL.D.
1879. William Jack, LL.D., D.Sc.

Ordinary Class.

Subjects: *Euclid*, Books IV., VI., and XI. 1—21, more advanced *Algebra*, and the Elements of *Transversals* and of *Analytical Geometry of the straight line and circle*, *Trigonometry*, including solution of triangles. Two parallel subdivisions of the Class meet daily (except on Saturdays), one from 9 to 10, and one from 12 to 1.

Intermediate Honours Class.

Subjects: *Plane Trigonometry*, *Analytical Conics*, *Differential and Elements of Integral Calculus*. There will be two divisions of the Class, one meeting from 10 to 11, and one meeting from 11 to 12, daily, except on Saturdays.

Advanced Honours Class.

Subjects: *Integral Calculus*, *Spherical Trigonometry*, *Geometry of Three Dimensions*, *Differential Equations*. The class meets at 11-12 on Mondays, Wednesdays, and Fridays.

---

[1] Mr. Millar was assistant and successor to Dr. Williamson from 26th Feb., 1789.

For the "Lorimer," the "Metcalfe," and the "Muir" Bursaries in Mathematics, see under Bursaries; and for the Cunninghame Gold Medal, see under Prizes.

II. NATURAL PHILOSOPHY.

This Professorship was founded by the Charter of *Nova Erectio* in 1577; and the Professor was confined to the department of Natural Philosophy in 1727. The Professor is elected by the University Court. He is a member of the Faculty of Arts, and also, since 1893, of the Faculty of Science.

Professors from the year 1727.

1727. Robert Dick.
1751. Robert Dick, M.D.
1757. John Anderson, M.A.
1796. James Brown, LL.D.
1803. W. Meikleham, LL.D.
1846. Lord Kelvin, D.C.L., LL.D., F.R.S.
1899. ANDREW GRAY, M.A., LL.D., F.R.S.

Lecturers.

PHYSICS (for Students of Medicine),	James G. Gray, D.Sc., F.R.S.E.
PHYSICAL OPTICS, - -	R. A. Houstoun, M.A., Ph.D., D.Sc.
ELECTRICITY—PURE AND APPLIED,	G. E. Allan, D.Sc.

University Assistants.

J. G. Gray, D.Sc., F.R.S.E.
R. A. Houstoun, M.A., Ph.D., D.Sc.
A. D. Ross, M.A., B.Sc., F.R.S.E.
G. Green, M.A., B.Sc.

Arnott and Thomson Demonstrator.

G. E. Allan, D.Sc.

I. GRADUATING COURSES.—The following are the courses of attendance required for graduation in the several faculties:

M.A. (Ordinary Course).—Ordinary Lecture Class.

M.A. (Higher Course).—Higher Mathematical Class B. [With such Laboratory work as may be prescribed.]

M.A. (Honours).—Ordinary Lecture Class, and Higher Mathematical Class A, with Laboratory Courses as detailed below for B.Sc. in Pure Science.

M.A. (Provincial Committee Students).—Special Graduating Lecture and Laboratory Class.

B.Sc. (Pure Science).—(*a*) First Science Examination: Ordinary Lecture Class and the Ordinary Laboratory Course (one term of 10 hours per week, or two terms of 6 hours per week). (*b*) Final Science Examination: Higher Mathematical Class A, and Advanced Laboratory Course (if Natural Philosophy is taken as a Subsidiary Subject, one term of 10 hours per week, or of 6 hours per week if the student has previously attended two terms in the Laboratory. If Natural Philosophy is taken as a Principal Subject further practical work will be required). A record of research work undertaken by the candidate will, if submitted, be taken account of as a qualification for the Degree.

B.Sc. (Eng. Sc.).—(*a*) First Science Examination: As for B.Sc. in Pure Science. (*b*) Final Science Examination: Higher Mathematical Class B. The course in Electricity, Pure and Applied, is one of the Options for this Degree.

B.Sc. (Agric.).—(*a*) First Science Examination: Ordinary Lecture Class. (*b*) Final Examination: The course for Experimental Physics (optional subject) is the Ordinary Laboratory Course (one term of 10 hours per week, or two terms of 6 hours per week).

M.B., Ch.B.—First Professional Examination: Physics Lecture Class. (See under Physics.)

II. ORDINARY LECTURE CLASS.—This Class meets daily at 9 A.M. The main divisions of the course are Elementary Dynamics and Properties of Matter, Sound, Heat, Light, Magnetism and Electricity. These will be fully illustrated by experiments. A detailed programme of the course will be published before the beginning of the session and supplied on application at the Physical Laboratory.

Tutorial Class.—Students attending the Ordinary Lecture Class are recommended to attend also the Tutorial Class, which meets on Tuesdays and Thursdays at 11 A.M. The work done in this class consists largely of numerical and other examples dealing with the subject-matter of the Ordinary Class lectures. There is no fee.

III. SPECIAL GRADUATING CLASS.—This class has been instituted to meet the wants of Teachers in Training and others who desire to become Teachers of Physics, or who may wish to obtain a practical training in the use of physical instruments. Five meetings of the class are held in each week, two of which are of two hours' duration, and are devoted to practical work performed in the Physical Laboratory. At the other meetings of the class Systematic Lectures are given, in which the principles of Natural Philosophy are explained and illustrated by experiments and examples. The class meets for lectures on Mondays, Tuesdays, and Thursdays, from 12 noon to 1 P.M. For practical work it meets in two sections, one of which attends on Tuesdays and Thursdays from 10 A.M. to 12 noon, and the other on Wednesdays and Fridays from 9 A.M. to 11 A.M.

IV. HIGHER MATHEMATICAL CLASS, A.—This class meets three hours weekly, on Mondays from 1 to 2 P.M., and on Wednesdays and Fridays from 12 noon to 1 P.M. The work comprises the Mathematical Theories of selected special branches of Natural Philosophy. The subjects treated next session will be Higher Dynamics, and one or more of the following: Hydrodynamics, Sound, Elasticity, Thermodynamics, Conduction of Heat, Optics, Magnetism, and Electricity.

V. HIGHER MATHEMATICAL CLASS, B.—This class meets on Mondays, Tuesdays, and Thursdays at 12 noon. The subjects treated are Dynamics, and two or more of the following: Hydrostatics and Hydrokinetics, Elasticity, Thermodynamics, and Electricity. These will be treated in such detail and with such reference to practical problems as may render the course suitable for Students of Engineering. Students are strongly advised to attend the Intermediate Honours Class in Mathematics before taking this course.

VI. ELECTRICITY, PURE AND APPLIED.—This class meets at 12 noon on Wednesdays and Fridays, if a sufficient number of students present themselves. It is very desirable that students attending this class should either be attending or have already attended a course of Practical Physics in the Physical Laboratory.

VII. PHYSICAL LABORATORY.—The Laboratory is open daily throughout the Winter and Summer Sessions from 10 to 1 and 2 to 4.

Ordinary Course.—This course includes instruction in the use of instruments, and experiments in General Physics, Sound, Heat, Light, and Magnetism and Electricity.

Advanced Course.—This course includes a series of advanced experiments in the subjects of the Ordinary Course. It can only be taken simultaneously with or subsequent to attendance in Higher Mathematical Class A or B.

Medical Courses.—(See under *Physics* below.)

Special Graduating Course.—(See above under Lecture lasses.)

Research Work.—Research work is carried on daily under ie superintendence of the Professor and his Assistants.

Research Student in 1908-9.—Robert C. Gray (Houldsworth esearch Student and Thomson Experimental Scholar). John . Anderson and Hugh Higgins, M.A., Thomson Experimental cholars, are also engaged in research.

Books recommended: (1) Ordinary Lecture Class.—Watson's *ext-Book of Physics*, or Glazebrook's *Cambridge Text-Books of hysics*; Maclean's *Exercises in Natural Philosophy*; Book of our Figure Logarithm Tables. (2) Special Graduating Class. -The above and Schuster and Lees' *Intermediate Course of ractical Physics.* (3) Higher Mathematical Class, A.—ray's *Treatise on Physics*, and books recommended in con ection with special subjects treated. (4) Higher Mathematical lass, B.—Williamson and Tarleton's *Dynamics.* (5) Elec icity, Pure and Applied.—Gray's *Absolute Measurements in lectricity and Magnetism*, and Foster and Porter's *Electricity ul Magnetism.* (6) Physical Laboratory.—Glazebrook and haw's *Practical Physics*, and Stewart and Gee's *Elementary ractical Physics*, Vol. II.

PHYSICS.

Lecturer—James G. Gray, D.Sc., F.R.S.E.

I. *Lectures.*—The lectures of this course are designed primarily or students proceeding to the First Professional Examination Medicine. They are delivered daily at 11 A.M. during the ummer Session in the Natural Philosophy Department, and mbrace the fundamental principles of the Dynamics of Solids, iquids, and Gases, and the rudiments of Sound, Light, Heat, lagnetism, and Electricity. A detailed programme of the sub-cts of the course, containing the titles of books recommended or use by students and of works which may be consulted, is iven to each student at the beginning of the course.

II. *Practical Work.*—A course of practical work in connec-ion with this class is held during the summer session, and hould be taken concurrently with the lectures. It is designed o furnish an opportunity of acquiring such a knowledge of hysical instruments and experience in their manipulation as nay be useful in practical Physiology and in laboratory work in Public Health. The class meets for practical work in two sections, the men students attending the Physical Laboratory on Tuesdays and Thursdays from 9 to 11 A.M., and the women students on Tuesdays and Thursdays from 2 to 4 P.M. The fee for this course is two guineas.

For the Arnott Prize in General Physics, see Index.

ELECTRICITY—PURE AND APPLIED.

Lecturer—GEORGE E. ALLAN, D.Sc.

(See p. 90 above.)

III. ASTRONOMY.

(See under Faculty of Science, page 94.)

IV. CHEMISTRY.

(See under Faculty of Medicine, page 112.)

V. ZOOLOGY.

(See under Faculty of Medicine, page 111.)

VI. BOTANY.

(See under Faculty of Medicine, page 110.)

VII. GEOLOGY.

(See under Faculty of Science, page 99.)

VIII. GEOGRAPHY.

This Lectureship was instituted by the University Court in 1909.

Lecturer—1909. H. G. LYONS, F.R.S.

Ordinary Class.—The course of 75 lectures, with supplementary tutorial instruction, treats of the subject generally, and qualifies for graduation in Arts. It falls into three main divisions, viz.:—I. Mathematical Geography; II. Physical Geography or Geomorphology; and III. Anthropogeography or Geography in relation to Man. Under the first head will be treated Map Projections, Cartography, Land Measurement, and Surveying; in the second division will be discussed Meteorology and Climatology, with Plant and Animal Distribution; and the third will be devoted to Economic and Commercial Geography on the one hand and to Political and Historical Geography on the other.

Advanced Class.—In this class of 50 lectures the Lecturer will deal with (*a*) a typical geographical region, and (*b*) a special branch of geographical science, these being varied from year to year. In session 1909-10 he proposes to take up under (*a*) the geography of arid regions, and under (*b*) Cartography, Land Measurement, and Surveying, more exhaustively treated than in the general course.

D. HISTORY AND LAW.

I. HISTORY.

This Chair was founded by Ordinance No. 28 of the Universities Commission (1889) of date 5th June, 1893. The Professor is appointed by the University Court.

Professors.

1894. Richard Lodge, M.A. 1899. DUDLEY J. MEDLEY, M.A.

ORDINARY CLASS.—The Class meets four times a week at 10 A.M. on such days as shall be determined from term to term by the Professor. Students attending the Class are warned not to make any permanent engagement for the class hour on any week-day except Saturday. The course qualifies for graduation.

In session 1909-10 the Professor will lecture on the Outlines of European History, A.D. 476-1453. The prescribed books are Bryce, *Holy Roman Empire*, and *Periods of European History*, vols. I. II. III. (Rivington).

Students who desire to take a second course in History for the Ordinary Degree will (if the Professor so advise) attend the Ordinary Class a second time and, in addition to a more extended study of Foreign History, they will be expected to show a knowledge of the outlines of British History during the same period.

HONOURS CLASS.—This Class meets twice or three times a week, at 11 A.M., on such days as shall be determined from term to term by the Professor. During session 1909-10 the Professor proposes to lecture on British History, political and constitutional, A.D. 1295-1558.

Students who intend to join this class would do well to make themselves thoroughly familiar with the outline of the history of the period. Those who desire to do further preparatory work should consult the Professor by letter.

NOTE.—*The classes recognized as Honours Classes in the Group of History are the Honours Classes held by the Professor of History, by the Lecturer in Constitutional Law and History, by the Lecturer in British History, and the Senior Class held by the Professor of Ecclesiastical History.*

BRITISH HISTORY.

Lecturer—

This Class meets on Mondays, Wednesdays, and Fridays, at 10 A.M.; and is more particularly concerned with the periods of British History prescribed for Honours in English.

In the session 1909-10 the subject for lecture will be "The Puritan Revolution," A.D. 1558-1660.

For the classes recognized as Honours Classes in the Group of HISTORY, *see the note on previous page.*

II. CONSTITUTIONAL LAW AND HISTORY.

Lecturer.

1894. WILLIAM S. MCKECHNIE, M.A., LL.B., D.Phil.

ORDINARY CLASS.—This class qualifies as a full course for graduation both for the ordinary M.A. and for Honours in History. (For subjects of study, text-books, etc., see under Faculty of Law, page 141.)

HONOURS CLASS.—In session 1909-10, if candidates for Honours in History present themselves, a course of fifty lectures (qualifying *pro tanto* for graduation with Honours) will be given on the early Constitutional History of England till 1295. The class text-book will be Stubbs, *Select Charters.* The following works are suggested for the use of students before or during the session:—Stubbs, *Constitutional History*; Pollock and Maitland, *History of English Law*; McKechnie, *Magna Carta.* The class meets on Mondays, Wednesdays, and Fridays at 3 P.M.

III. ROMAN LAW.

(See under Faculty of Law, page 139.)

II.—FACULTY OF SCIENCE.

The Faculty of Science was instituted by Ordinance No. 31 of the Universities Commission (1889) of date 5th June, 1893, and at the present time embraces the classes of Mathematics, Natural Philosophy, Astronomy, Chemistry, Zoology, Geology, Botany, Anatomy, Physiology, Civil Engineering and Mechanics, Naval Architecture, and Mining. In this Faculty there are also classes in Electricity—Pure and Applied, Electrical Engineering, Optics, Physical Chemistry, Organic Chemistry, Physiological Chemistry, Metallurgical Chemistry, and Public Health.

I. MATHEMATICS.

(See under Faculty of Arts, page 87.)

II. NATURAL PHILOSOPHY.

(See under Faculty of Arts, page 88.)

III. ASTRONOMY.

The Professorship of Practical Astronomy was founded in the year 1760, conjointly with the office of Observer in the University of Glasgow, and is in the gift of the Crown. By Ordinance No. 31 of the Universities Commission (1889) of date 5th June, 1893, it is now called Astronomy, and the Professor is a member of the Faculty of Science, the Chair having been transferred by the Universities Commission in 1893 from the Faculty of Arts to the newly instituted Faculty of Science.

Professors.

1760. Alex. Wilson, LL.D.
1784[1]. Patrick Wilson, LL.D.
1799. W. Meikleham, LL.D.
1803. James Cooper, D.D.
1836. John P. Nichol, LL.D.
1859. R. Grant, LL.D., F.R.S.
1893. LUDWIG BECKER, Ph.D., F.R.A.S.

An Observatory has always existed in connection with this Chair. The present Observatory is situated on an eminence in the vicinity of the University buildings.

Dr. Wilson, the second occupant of the Chair, bequeathed to the University the sum of one thousand pounds, upon the condition that the interest thereof should be applied to the purchase of instruments and books for the use of the Professor of Astronomy and the students attending his prelections.

The Trustees of the Bellahouston Bequest Fund made in 1894 a grant of eleven hundred pounds for the improvement of the Observatory.

The Professor of Astronomy delivers two Courses of Lectures on Astronomy at the University during the session, and gives expositions on instruments and methods of observation at the Observatory.

First Class.

Subjects: Spherical Astronomy — The celestial sphere, description and theory of instruments, determination of latitude and time, Precession, Nutation, Aberration, Figure of the Earth, Eclipses, Occultations, Determination of Orbits, Interpolation and Mechanical Quadrature.

The class meets at 3 P.M. on Mondays, Wednesdays, and during the first half of the session on Fridays. Practical Demonstrations at the Observatory on Saturdays, 10 A.M. to noon, in October and November.

Book recommended for general reading:—Charles A. Young, *Manual of Astronomy* (Ginn & Co., Boston and London, 1902).

---

[1] Dr. P. Wilson was assistant to his father from 4th June, 1782.

Second Class.

Subject: Celestial Dynamics.

The students ought to be well prepared on the subjects of the Intermediate Honours Mathematical Class.

The class meets at 3 P.M. on Tuesdays and Thursdays, and during the second half of the session on Fridays.

Attendance on the two classes, either in the same session or in different sessions, counts as a full course for the Degree of M.A. The first and second classes, which may be taken in one session, with practical work at the Observatory, are a full course for the Degree of B.Sc.; the practical work at the Observatory may be done during the winter or summer session, and the student may undergo his Degree examination before he has finished his practical work.

IV. CHEMISTRY.

(See under Faculty of Medicine, page 112.)

ORGANIC CHEMISTRY.

This Lectureship was instituted by the University Court in 1905.

Lecturer.—T. S. PATTERSON, D.Sc., Ph.D.

A general course of 40 lectures is delivered during the academic year, 20 of the lectures (Chemistry of the Aliphatic Compounds) being given in the first half of the winter session, and the remaining 20 (Chemistry of the Carbo-cyclic, and of the Hetero-cyclic Compounds) during the summer session. This class, which counts as a half course, must be taken by all offering Chemistry for the Final Science Examination. The time of meeting is arranged, so far as possible, to suit the convenience of students who wish to attend.

In the course, the chemistry of the aliphatic compounds will be sketched, important subjects such as the carbohydrates, aceto-acetic ester and malonic ester syntheses, stereoisomerism, the ureides, etc., being treated in some detail. Thereafter the chemistry of the carbo-cyclic, and a few of the more important hetero-cyclic compounds, is fully described, special attention being devoted throughout to the results of recent research. The lectures are illustrated by experiments, but since students taking the class are advised to take a laboratory course at the same time, when they may themselves carry out the more important operations described and prepare specimens of typical organic compounds, these experiments will only be such as are of a somewhat special character, and not suitable for general laboratory work.

Books recommended:—A. F. Hollemann, *Text book of Organic Chemistry*; J. B. Cohen, *Theoretical Organic Chemistry*; A. Bernthsen, *A Text-book of Organic Chemistry*. V. Meyer and P. Jacobson, *Lehrbuch der Organischen Chemie*. J. B. Cohen, *Practical Organic Chemistry for Advanced Students*; L. Gattermann, *Practical Methods of Organic Chemistry*; J. B. Cohen, *Organic Chemistry for Advanced Students*, Arnold, 21s.

(For Elementary Courses in Organic Chemistry, see Faculty of Medicine, p. 114.)

METALLURGICAL CHEMISTRY.

This Lectureship was instituted by the University in 1899, and an endowment was provided in 1908 (see p. 165).

Lecturer.—CECIL H. DESCH, D.Sc., Ph.D.

Lectures are given thrice weekly throughout the Winter Session. For convenience the course is divided into two parts: Class A, October to December; and Class B, January to March. Students may enrol for a half course on payment of half the fee for the full course. Metallurgical Chemistry is one of the qualifying subjects for the Degree of B.Sc. in Engineering and for the Certificate of Proficiency in Engineering. This class is also the qualifying graduation course in Metallurgy for students taking the B.Sc. Degree or the Certificate of Proficiency in Mining Engineering. Under the new regulations for the Final B.Sc. Examination in Pure Science Metallurgical Chemistry may be taken as a subsidiary subject; Metallurgical Chemistry also enters into the Final Examination when Chemistry is the student's principal subject.

SUBJECTS, *Class A.*—Occurrence, Preparation, Properties and Testing of Fuels and Refractory Materials, Types of Furnaces, Extraction of Metals from their Ores (including Electro-metallurgy).

Class B.—The Thermal and Microscopical study of Metals and Alloys; their physical and mechanical properties, and the effect of heat treatment. The Constitution of Cast Iron, Steel, and Copper Alloys. Methods of Analysis.

Laboratory Course.—Students should attend two and a half hours daily during the Winter Session.

Excursions are arranged throughout the session.

Text-Books.—Roberts-Austen, *Introduction to the Study of Metallurgy*; Schnabel and Louis, *Handbook of Metallurgy*; Sexton, *Fuel and Refractory Materials*; Osmond and Stead, *Microscopic Analysis of Metals*; Macfarlane, *Laboratory Notes on Practical Metallurgy*; Beringer, *A Text-Book of Assaying.*

PHYSICAL CHEMISTRY (INCLUDING RADIO-ACTIVITY).

This Lectureship was instituted by the University Court in 1904.

Lecturer.

1904. Frederick Soddy, M.A.

I. PHYSICAL CHEMISTRY.

This class, together with practical work in the Physical Chemistry laboratory, must have been taken by all offering chemistry for the Final Science Examination. It will be held during the Winter Session, and will comprise 40 lectures. Times will be arranged at the commencement of the session.

Syllabus.—Historical development of chemical theory; the relations between matter and energy; the atomic and molecular theories; conservation of energy and the laws of thermodynamics; detailed study of gases; the relations between the gaseous and liquid states; the methods of liquefaction of gases and of refrigeration; chemical change and chemical dynamics; equilibrium and balanced actions; dissociation, explosion, tautomerism; solutions and osmotic pressure; molecular weight of dissolved substances; relations between liquids and solids; eutectics and cryohydrates; phase rule; laws of thermochemistry; electro-chemistry; electrolysis; theory of electrolytic dissociation of solutions; electro-motive force of chemical change; electro-technical chemical processes; recent advances and methods of inorganic chemistry, including some selected researches.

Books recommended:—Walker's *Introduction to Physical Chemistry*, or Ostwald's *Outlines of General Chemistry*, *Text-Books of Physical Chemistry*, edited by Sir William Ramsay.

In conjunction with these lectures a practical class will be held during the latter half of the Winter Session. The Physical Chemistry Laboratory will be open daily for this purpose, and Class Certificates will not be given until the Practical Course has been taken.

Syllabus.—Determination of molecular weights by vapour density, freezing point and boiling point methods; conductivity of electrolytes; electro-chemical equivalents; measurement of single potential differences; electro-chemical analysis of metals; electrolytic and electric furnace chemical preparations; use of refractometer, polarimeter, and spectroscope in chemistry; determination of reaction velocity; gas manipulation and gas analysis; radio-active measurement, and analysis of radio active constituents in minerals.

II. RADIO-ACTIVITY.

A course of fifteen lectures in this subject will be held once every two years during the Winter Session. The course will not be given in 1909-10. It is designed to cover the important developments of recent years following on the discoveries of new types of radiation.

Syllabus.—Historical. Radio-activity a new atomic property of matter. Methods of measurement and investigation. The radio-active elements, uranium, thorium, radium, actinium, polonium, etc. The α, β, and γ rays and the determination of their constants and nature. Radio-active change. Theory of atomic disintegration. Determination of the law and rate of disintegration. Radio-active equilibrium. Period of average life of the radio-elements. The disintegration series as at present elucidated. The parent of radium. Connection of helium with the α-particle. Energetic aspect of radio-active change. Internal energy of elements. Problem of artificial transmutation. Radio-activity of the earth and atmosphere. Geological bearing of radio-activity.

The course is experimentally illustrated, and arrangements are made in the physical chemistry laboratory for practical instruction and original research in this subject. Books recommended:—E. Rutherford, *Radio-activity*; F. Soddy, *Radio-activity, an Elementary Treatise*.

V. GEOLOGY.

This Chair was founded by the University Court Ordinance No. VIII.[1] (Glasgow, No. 3) issued on 12th February, 1903.

---

[1] The text of this Ordinance was printed in full in the University Calendar for 1904-5, pp. 768-770.

and approved by His Majesty in Council on 11th August, 1903, an endowment of fifteen thousands pounds sterling having been provided by the Carnegie Trust, the Bellahouston Trust, and other Donors. The Professor is appointed by the University Court, and is a Professor in the Faculty of Science.

In 1876 the late Mrs. Honyman Gillespie of Torbanehill, endowed a Lectureship in Geology, to be called the Honyman Gillespie Lectureship, in memory of her husband, W. Honyman Gillespie, Esq. The Lectureship was attached by the Deed of Foundation to the Chair of Natural History, but power was given to the Trustees to withdraw it from that chair and to attach the income to the Chair of Geology when founded. The Trustees have agreed to exercise that power and pay over the annual income of the Honyman Gillespie Lectureship to the University Court to augment the salary of the Professor of Geology.

Professor.

1904. JOHN WALTER GREGORY, D.Sc., F.R.S.

Geology is a subject of study for the Degrees of M.A., B.Sc. in Pure Science, B.Sc. in Engineering, B.Sc. in Mining, B.Sc. in Agriculture, and B.Sc. in Public Health. For the Degree in Arts there will be one hundred meetings of the class, including Laboratory and Field Work; for the B.Sc. in Public Health fifty-two meetings, including Laboratory and Field Work; for the B.Sc. in Agriculture eighty meetings, including Laboratory and Field Work; for the B.Sc. in Engineering eighty meetings, including Laboratory and Field Work. The course for the B.Sc. in Pure Science is divided into two parts: in Part I. the course consists of one hundred meetings, of which fifty are lectures; Part II. consists of one hundred meetings, of which fifty are lectures. Before admission to Part II. a student must produce a certificate showing that he has done the work required in Part I. The course in Geology for B.Sc. in Mining Engineering comprises a course of fifty lectures and fifty meetings for practical work in the second year, and a course of fifty meetings taken after Christmas in the third year.

VI. ZOOLOGY.

(See under Faculty of Medicine, page 111.)

VII. BOTANY.

(See under Faculty of Medicine, page 110.)

VIII. ANATOMY.

(See under Faculty of Medicine, page 115.)

IX. PHYSIOLOGY.

(See under Faculty of Medicine, page 117.)

X. CIVIL ENGINEERING AND MECHANICS.

The Professorship of Civil Engineering and Mechanics was instituted by Queen Victoria in 1840, and is in the gift of the Crown. The emoluments of the Chair were increased in 1872 by a supplemental endowment[1] by the late Mrs. Elder, widow of Mr. John Elder, engineer and shipbuilder, Glasgow; and more recently, in 1876, an Assistantship was founded by bequest of Mrs. Black, widow of the Rev. Dr. Black, Barony Church, Glasgow.[2] The University Court instituted a lectureship on Electrical Engineering in 1898, and one on Engineering Drawing and Design in 1901.

Professors.

1840.	Lewis D. B. Gordon, C.E.
1855.	William J. Macquorn Rankine, C.E., LL.D.
1873.	James Thomson, M.A., C.E., LL.D., D.Sc., F.R.S.
1889.	ARCHIBALD BARR, D.Sc., M.Inst.C.E., M.I.Mech.E.

Lecturer on Electrical Engineering.

John S. Nicholson, B.Sc., Whit. Sch., A.M.I.E.E.

Lecturer on Engineering Drawing and Design.

Harry Bamford, M.Sc., A.M.Inst.C.E.

Assistants.

Thomas B. Morley, B.Sc.
Fred. H. Downie, B.Sc. (Young Foundation).

Demonstrators.

Fred. R. Stewart, B.Sc.
Robert M. Brown, B.Sc.
David Thomson, B.Sc.

The courses in Engineering extend throughout the winter session, that is, from 11th October till 17th March. They comprise Lectures on Engineering Principles and Practice, Instruction in Geometrical Drawing and in Engineering Drawing and Design, Laboratory Practice, and visits to Engineering Works and Manufactories.

---

[1] The annual income of a sum of £5000.

[2] The salary for the Young Assistantship thus founded is now £147.

These courses are designed primarily to suit students who intend to devote themselves to Civil, Mechanical, Electrical, or Mining Engineering; but the work of the classes will be found of direct practical utility to architects and to men who are engaged in any occupations connected with manufactures.

The work of the classes is not intended in any way to supersede the usual requirements of pupilage or apprenticeship in Engineering, but to enable the Engineer to gain such a knowledge of the principles underlying his profession or trade as he cannot acquire by only working in the office, in the field, or in the workshop. The classes may be attended either before or after pupilage or apprenticeship, or concurrently therewith. In most cases the students spend the summer six months in works or offices and thus get their scientific and practical training on the "sandwich" system.

Class I.—The Materials of Construction and the Elements of Applied Mechanics.—Daily at 9 a.m. Subjects: Preparation, Properties and Uses of the Chief Constructive Materials, especially of Cast Iron, Wrought Iron, Brass and other Alloys, Timber, Building Stones, Cements and Concrete; Graphics; Steam, Gas, and Oil Engines, and other Prime Movers; and the more Elementary Principles of Mechanics in their application to problems connected with Engineering Structures and Machines.

Class II.—Surveying, Levelling, and Setting-out of Works.—Mondays, Wednesdays, and Fridays, at 10 a.m.—Subjects:—Surveying with the Chain and with Angular Instruments; Telemetry; Levelling; the Optical and Mechanical Principles, Tests, and Adjustments of Surveying and Levelling Instruments; Setting-out of Works, especially Setting-out of Railways; Mensuration of Areas of Land and of Volumes in Earth Works; the Execution of Civil Engineering Works. The Lectures will treat for the most part of those portions of the subject which are not readily learned in ordinary field and office practice.

Class III.—Prime Movers and the Mechanics of Machinery.—Mondays, Wednesdays, and Fridays at 10 a.m. The Lectures treat of the Sources of Energy; Fuels; the Theory of Steam, Gas, and other Heat Engines; the structural details of Boilers and Engines; the Mechanics of Machinery; the Elements of Machine Design; the Transmission of Power; and Friction and Lubrication in Machines. Attendance on this class should be preceded by attendance on Class I. in the case of students entering with little knowledge of Applied Mechanics.

CLASS IV.—HIGHER APPLIED MECHANICS AND HYDRAULICS. —Daily, except Saturday, at 9 A.M. The Lectures treat of the Strength and Elasticity of Materials; the Strength and Stiffness of Beams, Girders, Columns, Framed Structures, Shafts, etc.; Hydraulics and Hydraulic Appliances, including the Gauging of Water, the Flow of Water in Pipes, and the Principles of Water Wheels, Turbines, and Centrifugal Pumps.

ENGINEERING DRAWING AND DESIGN.—The drawing classroom is open daily, except Saturday, from 9 A.M. till 5 P.M. Each student will be required to attend six hours per week (at times to be arranged at the beginning of the session), and will be expected to devote extra time to the performance of work. The work of the classes will comprise Lectures and Practice in Civil and Mechanical Engineering Drawing; Lectures and Practice in Design of Structures; Descriptive Geometry, Graphical Statics, and the Kinematics of machinery; and the performance of graphical work and calculations in connection with the lecture courses.

ENGINEERING LABORATORIES.—The James Watt Engineering Laboratories, which have been erected and equipped at a total cost of about £40,000, are now complete. The equipment includes a steam boiler for 100 horse power, steam, gas, oil, petrol, and hot-air engines; a 50 horse power steam turbine; a refrigerating plant; 100-ton and 10-ton testing machines arranged for tests in tension, compression, bending, and torsion, and fitted with autographic stress and strain recorders; cement testing appliances; a variety of water turbines; apparatus for experiments on the flow of water through orifices and pipes, and other apparatus for investigations bearing upon Engineering Science and Practice. (See also under Electrical Engineering p. 101.)

The Laboratories are open daily; each student is required to attend at least six hours per week (at times to be arranged at the beginning of the session).

For the purposes of Ordinance No. 23, Section IX. (see page 261), Class IV., together with Laboratory practice, counts as one whole course; any two of the other Lecture Classes (I., II., III., Electrical Engineering I., II.), together with Laboratory practice, count as the other whole course. Candidates taking the second option under Section IX., *i.e.* candidates for the Degree of B.Sc. on the side of Naval Architecture, are required to take Class IV. together with Laboratory practice.

ELECTRICAL ENGINEERING.

A Lectureship in Electrical Engineering was instituted by the University Court in 1898.

Lecturers.

1898. John Dewar Cormack, B.Sc.
1901. James Blacklock Henderson, D.Sc.
1905. John Steel Nicholson, B.Sc., Whit. Sch.

Two classes are held during the Winter Session. For the purposes of Ordinance No. 23, Section IX., 5, 6 (see page 261), Class I., along with Laboratory practice, *or* Class II., with Laboratory practice, counts as a half course, while both classes, along with Laboratory practice, constitute a full course. Class I. and Class II. are also qualifying classes under Ordinance No. 23, Section IX., 9 (*h*).

The Electrical Laboratory is part of the new James Watt Engineering Laboratories, and is open daily, except Saturdays, for experimental and research work.

Class I.—Mondays, Wednesdays, and Fridays at 8 A.M. Subjects:—Practical units of current, quantity, E.M.F., resistance, power, and energy; Ammeters, voltmeters, ohmmeters, wattmeters, and energymeters; Winding of resistances. Cells and the calculation of E.M.Forces; Secondary cells and their chemical reactions; Electro-chemical processes. Magnetic properties of iron and steel and their measurement; the magnetic circuit; Hysteresis and hysteresis losses. Electro-magnetic induction and the production of E.M.F.; Development of the dynamo; Winding of field magnets and armatures. Conditions for sparkless commutation; characteristic curves; losses in dynamos and motors; efficiency of dynamos and motors; methods of testing dynamos and motors. Modern direct current machinery; types of motors; motor starters and controllers; tramway, lift and crane controllers. Direct current distribution;

Kelvin's law of economy. Alternating E.M. Forces and currents; relation between mean, maximum and effective values; rotating fields; measurement of alternating currents; E.M. Forces and power; power factors. Alternators; arc lamps.

Text-books: Crapper, *Electric and Magnetic Circuits*; Thomälen, *Electrical Engineering* (translated by G. W. O. Howe); James Barr, *Electrical Engineering*.

Book of reference: Rosenberg, *Electrical Engineering*.

Class II.—Tuesdays, Thursdays, and Saturdays, at 8 A.M. Subjects:—Direct current motors series and shunt; accelerating torque; mechanical characteristic. Dynamo design; relation of size to output; proportioning of parts; choice and calculation of winding; theory of commutation; construction of commutators. Alternate current phenomena; single and polyphase currents; mathematical and graphical treatment of alternating current problems; armature reaction. The working of alternators singly and in parallel; methods of paralleling; armature reaction in polyphase machines and rotary converters; design of polyphase machines; design of transformers. Induction motors, single and polyphase; methods of starting; single-phase commutator motors; compensated asynchronous and synchronous motors and generators. Characteristics of alternators and motors; testing of alternators; compounding of alternators, distribution of power and distribution losses.

Text-book: Steinmetz, *Elements of Electrical Engineering*.

Books of reference: Steinmetz, *Alternating Current Phenomena*; S. P. Thompson, *Alternating Current Machinery*; Kapp, *Dynamos and Alternators*; C. G. Lamb, *Alternating Currents*.

Practical Course—The equipment of the Electrical Laboratories includes a 30 K.W. three-phase generator, and a 7 K.W. two-phase generator, both motor driven, two 9 K.W. rotary converters, two tramway motors mounted for experimental work, a 5 K.W. continuous current motor generator or booster, a 5 K.W. balancer set, and motors of various kinds for continuous and alternating current. The electrical plants in other parts of the James Watt Laboratories also provide subjects for experiment. These include a 34 K.W. de Laval steam turbine dynamo, a 30 K.W. high speed engine and dynamo, a 35 H.P. Eddy current brake, an electrically driven lift, and motor-driven fan, air pump and centrifugal pump.

The instrument room is equipped with the most modern measuring instruments.

As to the Degrees of B.Sc. and D.Sc. in Engineering Science, see Index.

As to the Certificate of Proficiency in Engineering Science, see Index.

As to the Muir Bursaries, the Metcalfe Bursaries, the John Oliphant Bursary, the Dr. Strang Bursaries, the George Young Bursary, the Walker Prizes, the George Harvey Prize, the James Watt Scholarship, and the Lindsay Burnet Medal in the Department of Civil Engineering and Mechanics, see Index.

XI. MINING.

THEORY AND PRACTICE OF MINING.

On 26th March, 1902, James S. Dixon, LL.D., Fairleigh, Bothwell, recognising the want of a means of teaching the higher branches of the Theory and Practice of Mining, and the desire for acquiring such knowledge displayed by many young men connected with mining, made an offer of £10,000 to found a Chair or Lectureship of Mining in the University of Glasgow. The University Court accepted the offer, and a Lectureship was accordingly founded. In 1907 Dr. Dixon increased the foundation by the sum of £6,500, and the University Court, by University Court Ordinance, No. XIX. (Glasgow, No. 5),[1] converted the Lectureship into a Chair. The Professor is appointed by a special body consisting of (1) the members of the Court, (2) the President of the Mining Institute of Scotland, (3) His Majesty's Inspector of Mines for the Western District of Scotland, (4) His Majesty's Inspector of Mines for the Eastern District of Scotland, (5) the President of the Lanarkshire Coalmasters' Association, and (6) the Donor during his life or till his resignation.

Lecturer—1902. Charles Latham, M.Inst.M.E.

Professor—1907. CHARLES LATHAM, M.Inst.M.E.

The courses in mining extend throughout the winter session. Arrangements have been made for a limited number of students to obtain practical experience, during the summer months, at some of the largest and best equipped collieries in Scotland.

---

[1] The text of this Ordinance was printed in the *University Calendar* for 1908-9, see pp. 760, 761.

Under the Coal Mines Regulation Act (1887) Amendment Act (1903), both the Degree of B.Sc., and Certificate of Proficiency, in Mining Engineering are now recognised by the Home Office as equivalent to two of the five years' practical training necessary to qualify as a mine manager.

MINING ENGINEERING.

CLASS I.—Mondays and Wednesdays at 3 P.M. Subjects:—Prospecting, Boring, Sinking, Winding and Ventilation.

CLASS II.—Tuesdays and Thursdays at 3 P.M. Subjects:—Explosives, Haulage, Pumping, Lighting, Timbering, and Coal Cutting Machinery.

CLASS III.—Fridays at 3 P.M. Subjects:—Methods of working Coal and Metalliferous Mines, surface arrangements for dressing and cleaning coal and other minerals.

CLASS IV.—The designing and testing of Mining Plant. For this class the Mining Laboratory is open daily; each student will be required to attend at least one hour a week.

As to the degree of B.Sc. in Mining Engineering, and the Certificate of Proficiency in Mining Engineering, see Index.

EVENING CLASSES.

For the benefit of those students who do not wish to take the degree, a similar course to the above will be given in the evening as follows: Class I., Mondays and Wednesdays at 6.30 P.M.; Class II., Tuesdays and Thursdays at 6.30 P.M.; Class III., Fridays at 6.30 P.M.; Class IV.—The Mining Laboratory will be open on two evenings a week from 6.30 P.M. for this class, in order that students may attend on either one or other, whichever may be most convenient to them.

MINE MANAGEMENT.

This course is intended for students who wish to qualify as mine managers under the Coal Mines Regulation Act, and extends over two years.

CLASS I.—Mondays at 7.30 P.M. Subjects:—Boring, Sinking, Explosives, Winding, and Ventilation.

CLASS II.—Wednesdays at 7.30 P.M. Subjects:—Methods of Working, Haulage, Pumping, Lighting, Timbering, Coal Cutting Machinery, and Surface Arrangements.

XII. NAVAL ARCHITECTURE, INCLUDING MARINE ENGINEERING.

The John Elder Chair of Naval Architecture was founded by the University in 1883. An endowment of £12,500 was provided by the late Mrs. Elder, widow of Mr. John Elder, engineer and shipbuilder, Glasgow. The Professor is appointed by the University Court.

Professors.

1883. Francis Elgar, LL.D. | 1886. Philip Jenkins.
1891. John Harvard Biles, LL.D.

The courses of the Professor comprise a Junior Course of Lectures and Examinations upon Naval Architecture and Marine Engine and Boiler Design, and a Senior Course of Lectures and Examinations upon Naval Architecture and Marine Engine Design; also a Junior and a Senior Course of Instruction in Ship Drawing and Calculations and Marine Engine Drawing and Design. The Junior Course of Lectures and Examinations may be taken in either the first or the second year of the regular curriculum, and the classes will meet on Mondays, Wednesdays, and Fridays at 12 noon, or at any other hour that may be found convenient. The classes of the Senior Course will be held on Mondays, Tuesdays, and Thursdays from 11 A.M. to 12 noon, or at any other hour that may be found convenient.

The Junior Course of Instruction in Ship Drawing and Calculations and Marine Engine Drawing and Design is expected to be taken by students in the first year of the regular curriculum; and the classes will be held on Tuesdays, Wednesdays, Thursdays, and Fridays from 2 P.M. to 5 P.M., or at any hour that may be found convenient. The classes of the Senior Course will be held on Tuesdays, Wednesdays, Thursdays, and Fridays from 2 P.M. to 5 P.M., or at any other hour that may be found convenient.

As to the Degree of B.Sc. on the side of Naval Architecture and Marine Engineering, see Index.

As to the Lloyd's Register Scholarship, and the Kirk Memorial Prize, see Index.

XIII. PUBLIC HEALTH.

(See under Faculty of Medicine, p. 123).

III.—FACULTY OF MEDICINE.

The Faculty of Medicine embraces the Classes of Botany, Zoology, Physics, Chemistry, Anatomy, Embryology, Physiology, Materia Medica, Pathology, Forensic Medicine, Surgery, Clinical Surgery, Practice of Medicine, Clinical Medicine, Midwifery, Insanity, Diseases of the Eye, Diseases of the Ear, Diseases of the Throat and Nose, Diseases of the Skin, and Diseases of Children.

ORDER OF STUDY RECOMMENDED.

It is advantageous that the Student should commence his studies in Summer.

Candidates are advised not to go up for examination in Chemistry and Zoology till the Autumn before the Second Winter.

1ST SUMMER.—Physics, Botany.

1ST WINTER.—Chemistry, Junior Anatomy, Zoology. Practical Zoology may also be taken. Practical Chemistry in Laboratory may also be taken if desired.

2ND SUMMER.—Practical Anatomy, Embryology, Practical Histology. Practical Chemistry may be taken if not already attended.

2ND WINTER.—Senior Anatomy, Physiology, Practical Physiology, Practical Anatomy.

3RD SUMMER.—Practical Anatomy, Practical Pharmacy, Clinical Surgery and Hospital.

3RD WINTER.—Surgery, Materia Medica, Clinical Surgery, Hospital and Dispensary Practice.

4TH SUMMER.—Practical Pathology, Medical Jurisprudence and Public Health, Operative Surgery, Clinical Medicine and Hospital.

4TH WINTER.—Pathology, Practice of Medicine, Midwifery. Also Clinical Class and Hospital.

5TH SUMMER.—Insanity, Diseases of Women, the Skin, the Eye, the Ear, the Throat and Nose, Vaccination, Hospital, Fevers.

5TH WINTER.—Hospital, Midwifery Practice, and Specialities of Practice not previously attended to.

A. The subjects of the *First Professional Examination* for the Degrees of Bachelor of Medicine and Bachelor of Surgery are taught in the following classes:—

I. BOTANY.

The subject of Botany was from 1718 conjoined with Anatomy. The combination being found unsuitable, a separate Lectureship on Botany was instituted, and ultimately, in 1818, the Professorship was founded. The appointment is vested in the Crown. (See p. 207, as to Botanic Garden.)

Professors.

1818. Robert Graham, M.D.
1820. Sir W. J. Hooker, LL.D.
1841. John H. Balfour, M.D.
1845. G. A. Walker-Arnott, LL.D.
1868. Alexander Dickson, M.D.
1879. I. B. Balfour, M.D., D.Sc.
1885. Frederick O. Bower, Sc.D., F.R.S.

The elementary course in Botany for students in Medicine and Science is held in the University during the summer session. Lectures are given every Tuesday, Wednesday, Thursday, Friday, and Saturday at 8 A.M. On certain Saturdays during the summer session microscopic demonstrations are given in the Laboratory.

Elementary practical classes for students in Medicine meet during the summer session from 9 A.M. to 11 A.M. or from 1 P.M. to 3 P.M., on Mondays, Wednesdays, and Fridays. Students for first B.Sc. attend also on Tuesdays and Thursdays, when additional lecture instruction and practical work will be given.

The course in Botany for the degree of M.A. consists of two qualifying half courses. The first, treating of the lower forms, is given in the second term (from January to March), and consists of thirty lectures and twenty meetings for practical work. The second half-course (which can only be taken by students who have already passed through the first half-course) treats of flowering plants, consists of twenty lectures and thirty meetings for practical work, and is held in the third term (from April to June).

Courses of advanced instruction designed for candidates for Final B.Sc. are arranged in both winter and summer sessions. A course of fifty lectures is given in the winter session on Mondays, Wednesdays, and Fridays, at 10 A.M.; in winter, 1909-10, they will deal specially with the Phanerogams.

In the summer session thirty advanced lectures are given on Physiological Anatomy, and twenty advanced floral demonstrations. The demonstrations are open without fee to students who have already attended either the course qualifying for first B.Sc. or the full qualifying course for M.A.

A practical course, dealing in the winter of 1909-10 with the Phanerogams, will be arranged in the Advanced Laboratory from October to March, meeting on Mondays, Wednesdays, and Fridays, from 11 A.M. onwards. The Laboratory will be open every day for work from 9 A.M. to 4 P.M.

A practical course will be arranged in the Advanced Laboratory in the summer session, dealing with Physiological Anatomy and Floral Morphology. It is in connection with this that thirty lectures will be given on Physiological Anatomy, at 3 P.M. on Mondays, Wednesdays, and Fridays, during the summer session, and twenty Floral Demonstrations, from 3 P.M. to 4 P.M., on Tuesdays and Thursdays.

The University Herbarium may be consulted by students on applying to the Professor.

Students in the Botanical Class may obtain, by applying to the Professor, specimens of plants from the Botanic Garden for private study.

For the "Dobbie Smith" Gold Medal, see under "Prizes."

II. ZOOLOGY.

This Professorship, under the name of Natural History, was founded by George III. in 1807. It originally comprehended both Zoology and Geology, but when the Chair of Geology was founded in 1903 by the University Court Ordinance No. VIII., it was provided that the Chair of Natural History should thenceforth be called the Chair of Zoology. The Professor is appointed by the Crown.

Professors.

1807. Lockhart Muirhead, LL.D.
1829. Wm. Couper, M.D.
1857. Henry D. Rogers, LL.D.
1866. John Young, M.D.
1902. J. Graham Kerr, M.A.

Senior Assistant—W. E. Agar, D.Sc., M.A.

Lectures on Zoology, including Comparative Morphology, are given daily at 9 A.M. throughout the Academical year.

The first 50 Lectures of the Course are introductory in their nature. In these Protozoology is treated in considerable detail while the more important groups above the Protozoa are treated in outline, special attention being devoted to such as are of general zoological interest, and to such as are, from their parasitic habits or otherwise, of special importance to the Student of Medicine. Details of the anatomy of the higher Vertebrates are not dealt with.

In connection with this part of the Course, a Laboratory Class in Elementary Practical Zoology will be held daily from 11 A.M. to 1 P.M., and, if necessary, repeated in the afternoon from 3 P.M. to 5 P.M. In this class Students will examine for themselves examples of the main groups treated of in the systematic lectures.

During the latter half of the Winter and during the Summer Session certain portions of the subject will be treated more fully—in Summer the Comparative Anatomy and Embryology of the Vertebrata, and in Winter the more general problems of Zoology (such as Evolution Theory) together with the special Zoology of one or more of the Phyla of the Invertebrata. Practical work will be arranged from 11 A.M. to 1 P.M. to illustrate the Lectures, and that during the Summer Session will be of such a nature as to give Students an introduction to the methods of Laboratory technique.

The Zoological collections in the Hunterian Museum, though as yet only partially adapted to teaching purposes, are open free to students.

Text-books for Elementary Class: Shipley & MacBride, *Zoology;* Marshall & Hurst, *Practical Zoology.*

III. PHYSICS.

(See under Natural Philosophy in Faculty of Arts, p. 91.)

IV. CHEMISTRY.

This Professorship was founded by George III. in 1817, previous to which time (from 1747) there were Lecturers on Chemistry appointed by the University. The Professor is appointed by the Crown.

Lecturers.

1747. William Cullen, M.D.
1756. Joseph Black, M.D.
1766. John Robison, LL.D.
1769. William Irvine, M.D.
1787. Thomas C. Hope, M.D.
1791. Robert Cleghorn, M.D.

Professors.

818. Thomas Thomson, M.D. | 1852. Thomas Anderson, M.D.
1874. JOHN FERGUSON, M.A., LL.D., F.S.A.

Assistants.

ames Roberts, F.C.S. | Andrew Henderson, M.A., B.Sc.
Robert Scott, M.A.

SYSTEMATIC CHEMISTRY.—The Lectures are delivered daily t 10 A.M. during the winter session. They treat of the eneral principles of Chemical Philosophy and the preparation nd properties of the Non-Metallic and the principal metallic lements and their compounds.

Attendance on this course qualifies for Degrees in Arts and Medicine and for the First Examination for Degrees in Science.

Tutorial Classes.—Students desiring to obtain a qualifying ertificate for Degrees in connection with the systematic ourse are required to give attendance at one of the Tutorial Classes, each of which meets once a week. The teaching in hese classes is supplementary to that given in the systematic ecture course, and is given partly by means of oral examination and written exercises in Chemical Arithmetic.

Written examinations of the whole class are held at intervals luring the session. By the ordinances attendance at these xaminations and attainment of the required standard are ompulsory.

HIGHER COURSES.—Short courses on Metallurgical, Physical nd Organic Chemistry are given during the winter and ummer sessions, and to meet the requirements of Ordinance No. 12, Section IX. (4) (p. 252), a higher course will be lelivered as required. It will deal with the Rare Elements, Theories of Chemistry, and the History of Chemistry.

CHEMICAL LABORATORIES.—The Laboratories are open daily except Saturday) from 10 A.M. to 4 P.M. Junior students go through a course of inorganic preparations and qualitative nalysis suitable for those proceeding to degrees in Medicine nd Arts and to the First Examination for Degrees in Science. Medical students are required to spend at least two and a half hours a day at practical work. Those intending to proceed to the degree in Arts or to the first examination for a degree in Science are recommended to attend for 3-3½ hours per day during a half session or to take a full session course.

Senior students go through a course consisting of quantitative analysis including the analysis of gases, exercises in physical and electrochemistry, and organic analysis and preparations. One whole session (or two half sessions) of attendance at the laboratory, after completion of the qualifying course for the first B.Sc. Examination, is required of candidates proceeding to the Final Examination in Chemistry for B.Sc., but students are strongly advised to spend a further period before attempting the Examination.

For work to be professed by Candidates for Degree Examinations in Chemistry see pp. 239, 255.

POST-GRADUATE STUDY AND RESEARCH.—Arrangements are made for graduates and others engaging in original investigation in Organic, Physical and Metallurgical Chemistry. Particulars regarding scholarships, fellowships and bursaries tenable in the chemical laboratories may be obtained from the *Calendar*, pp. 473—474. Those intending to take advantage of the arrangements during next session should make timely application to the Professor.

ORGANIC CHEMISTRY. *Lecturer*—T. S. Patterson, D.Sc., Ph.D. *Advanced Course of* 40 *lectures*—see Faculty of Science, p. 96.

Two courses of Lectures on Elementary Organic Chemistry are given.

1. *An Elementary Course of* 25 *lectures during the latter part of the Winter Session.*

This course is suitable for students taking the First Science Examination, for medical students, or for others who wish to attend a systematic course in Organic Chemistry without working up to the standard of Final B.Sc. in Chemistry.

The lectures are fully illustrated by experiments, and deal with the following subjects:—Methods of Analysis, Deduction of Formulæ, Classification of Organic Compounds, and the Chemistry of the following classes of substances—Aliphatic hydrocarbons, halogen derivatives, alcohols, ethers, aldehydes, ketones, acids, esters, amines, amides, and a few of the more common aromatic compounds.

2. *An Elementary Course of* 20 *lectures during the Summer Session.*

This course, in which the subject is treated much as in the winter course, is only held provided a sufficient number of students come forward.

Books recommended:—Perkin & Kipping, *Organic Chemistry*, Part I.; Cohen, *Theoretical Organic Chemistry*.

METALLURGICAL CHEMISTRY.

(See Faculty of Science, p. 97.)

PHYSICAL CHEMISTRY.

(See Faculty of Science, p. 98.)

B. The subjects of the *Second Professional Examination* for the Degrees of Bachelor of Medicine and Bachelor of Surgery are taught in the following classes:—

I. ANATOMY.

This Professorship, with which Botany was at first associated, was founded in 1718 by the Crown and University jointly. After 1818 the province of the Chair was restricted to Anatomy.

Professors.

1720. Thomas Brisbane, M.D.
1742. Robert Hamilton, M.D.
1756. Joseph Black, M.D.
1757. Thos. Hamilton, M.D
1781. William Hamilton, M.D.
1790. James Jeffray, M.D.
1848. Allen Thomson, M.D., LL.D., F.R.S.
1877. JOHN CLELAND, M.D., LL.D. (St. A. and Ed.), D.Sc., F.R.S.
1909. ——— ———

Lecturer on Regional Anatomy and Senior Demonstrator.

William K. Hutton, M.A., M.B., C.M.

Other Demonstrators.

Andrew B. Aitken, M.B., Ch.B.
Matthew Young, M.B., Ch.B.
Ernest M. Eaton, M.B., Ch.B.

In the WINTER SESSION Anatomical Instruction is conducted in the following courses, viz.:—

1. ELEMENTARY DESCRIPTIVE LECTURES.—This class meets on five days weekly from 11 A.M. to 12 noon. The Lectures comprehend a full systematic description of the Bones, Joints,

Muscles and Muscular Organs, and a general view of the Nervous System and Viscera.

2. Advanced Descriptive Lectures and Demonstrations.—This class meets on six days weekly, viz., on five days for Lecture, from 1 p.m. to 2 p.m., and on Saturday for Microscopical Demonstrations at 11 a.m. The course comprehends: 1st, Demonstrations of Regional or Topographical Anatomy, including the Distribution and Relations of the Blood-vessels and Nerves; 2nd, Histology and a Detailed Description of the Viscera, Brain and Organs of Sense.

3. Practical Anatomy.—This class is under the superintendence of the Professor and Demonstrators. The dissecting room is open from 9 a.m. to 4.45 p.m. daily, except on Saturdays, when it is closed at mid-day.

Text-books.—Cleland and Mackay, *Human Anatomy;* Cleland and Mackay, *Directory for Dissection.* Also, Spalteholz, *Handatlas of Human Anatomy*, or Toldt, *Atlas of Human Anatomy*, will be found a valuable and convenient auxiliary.

In the Summer Session the rooms for Practical Anatomy are open from 9 a.m. to 4 p.m. daily.

EMBRYOLOGY.

A Lectureship on Embryology was instituted by the University Court in 1894, but the first Lecturer, Dr. John Yule Mackay, having resigned before the beginning of the second session, temporary arrangements were made for carrying on the work of the class in 1895 and 1896.

Lecturers.

1894. John Yule Mackay, M.D.
1897. James F. Gemmill, M.A., M.D.

The *Systematic Class* meets in the Anatomy Class-room at 11 a.m. on Mondays, Tuesdays, Thursdays, and Fridays of the summer session. The course deals with Vertebrate, and specially with Human Development, a certain amount of General Embryology being also included in the earlier lectures.

A *Practical Class* in Embryology is also held in the Summer Session. The course includes:—

I. Instruction in methods.

II. Practical Study of:—(*a*) Maturation, fertilisation, segmentation etc. (Echinoderm material most suitable). (*b*) The development of one or more of the following types,—(1) Cartilaginous fish, (2) Amphibian, (3) Chick. (*c*) Mammalian development with reference to the foetal membranes, placenta and uterus, especially in the human subject.

III. Such advanced lectures as may from time to time be necessary in order to illustrate the bearing of any part of the practical work on Comparative Embryology.

Competent workers will be given facilities for carrying out any special study or research, alike during the Winter and the Summer Session.

The Laboratory will be open from 9 A.M. till 1 P.M. except on Saturdays when the hour of closing is 12 noon.

APPLIED ANATOMY.

This Lectureship was instituted by the University Court in 1906.

Lecturer.

1906. Robert Kennedy, M.A., M.D., D.Sc.

The course of lectures is intended as an advanced class embracing the study of those portions of anatomy which are essential for the understanding of practical medicine and surgery.

The subject is taught with reference entirely to its practical applications, and is therefore intended for those who are already students of clinical work.

The class meets on Mondays, Wednesdays, and Fridays in the Summer Session, at 1 P.M., in the Anatomical Class Room.

II. PHYSIOLOGY.

This Professorship was founded by Her Majesty, Queen Victoria, in the year 1839, under the name of Theory of Physic. It was subsequently known as Institutes of Medicine, and is now, in accordance with Ordinance No. 31 of date 5th June, 1893, designated Physiology.

Professors.

1839. Andrew Buchanan, M.D.
1876. John Gray M'Kendrick, M.D., LL.D., F.R.S., F.R.S.E., F.R.C.P.E.
1906. Diarmid Noël Paton, M.D., B.Sc., F.R.C.P.Ed.

I. SYSTEMATIC LECTURES.

The Lectures and Demonstrations of this course are given at 12 noon during the winter session. They are devoted to an exposition of the main principles and facts of the Physiology of Man.

Examinations are held during the session.

II. PRACTICAL PHYSIOLOGY.

This class consists of three parts:

(*a*) Practical Histology.
(*b*) Practical General Physiology.
(*c*) Practical Chemical Physiology.

(*a*) Practical Histology is taught during the *summer session*, each section of the class meeting two or three times a week from 9 A.M. to 11 A.M.

This course includes instruction in the use of the microscope, in the microscopical examination of the various tissues and organs, and in the methods of hardening, staining, cutting, and mounting preparations.

(*b*) Practical General Physiology is taken between October and Christmas, each section meeting twice a week from 2 P.M. to 4 P.M. The ordinary experimental methods of physiology are studied practically.

(*c*) Practical Chemical Physiology is taken after Christmas, each section meeting twice a week from 2 P.M. to 4 P.M. The methods of chemical examination of the fluid and solid constituents of the body are dealt with.

Practical Histology should be taken in the summer before the Lectures, and Practical General Physiology and Chemical Physiology in the winter along with the Lectures.

III. ADVANCED CLASS OF PRACTICAL PHYSIOLOGY.

This Class is intended to meet the requirements of candidates for the Degree of B.Sc. It meets during the winter and summer sessions at suitable hours, on two days weekly. The course comprises about forty meetings, each of at least two hours duration in winter, and about twenty meetings of two hours each in summer. The course embraces (*a*) the more advanced methods of Physiological Chemistry, (*b*) special methods in advanced Histology, and (*c*) the more advanced methods of experimental investigation. It is wholly practical, and is designed to supplement the instruction given in the ordinary class of Practical Physiology, which must have been previously attended. Candidates for the Degree of B.Sc. in Pure Science who have specialised in one or more of the branches of the subject enumerated on p. 256 engage in practical work in the Laboratory upon their selected branch for at least one term.

IV. THE LABORATORY.

The Laboratories are open daily, under the superintendence of the Professor, the Lecturers on Physiological Chemistry and on Experimental Psychology, and the Assistants. Application should be made to the Professor by those who may wish to pursue original investigation.

Text-books: Noel Paton, *Essentials of Human Physiology*; Howell, *Text-book of Physiology*; Noël Paton and Cathcart, *Practical Course of Chemical Physiology*; Noël Paton and G. H. Clark, *A Practical Course of General Physiology for Medical Students*; Noël Paton and G. H. Clark, *Guide to the Practical Study of Histology*; and for the advanced classes such books as may be recommended from time to time.

V. GRIEVE LECTURESHIP ON PHYSIOLOGICAL CHEMISTRY.

Lecturer. 1905. Edward P. Cathcart, M.D., D.Sc.

The course of lectures delivered under this foundation is on the higher aspects of chemical physiology with special reference to the chemistry of the various metabolic processes. Each year some special subject is chosen for more thorough treatment. During the winter session 1909-10 the special subject discussed will be the metabolism of the Carbohydrates.

This course may be regarded as an extension of the physiological chemistry taught in the advanced practical class. The lectures will be illustrated, as far as possible, by means of experiments.

The laboratory for physiological chemistry will be available during both the winter and the summer session for special research.

As to the Muirhead Demonstratorship of Physiology, see p. 158. As to the Grieve Lectureship in Physiological Chemistry, see p. 159.

VI. LECTURESHIP ON PSYCHOLOGY.

Lecturer.—1908. Henry J. Watt, M.A., Ph.D.

A course of lectures in Psychological Physiology suitable for those intending to take the B.Sc. Examination in Physiology will be given during the winter session.

This course will deal more closely with the special senses, the elaboration of sense-experience, memory, association, various types of action, especially voluntary action, feeling, etc. It will include experimental practice whenever possible.

The psychological laboratory will be available for special research.

III. MATERIA MEDICA.

A Lectureship on this subject was founded by the College in 1766, and a Professorship created by the Crown in 1831.

Lecturers.

1766. William Irvine, M.D.
1787. Thomas C. Hope, M.D.
1788. Robert Cleghorn, M.D.
1791. Richard Millar, M.D.

Professors.

1831. Richard Millar, M.D.
1833. John Couper, M.D.
1855. John A. Easton, M.D.
1865. John B. Cowan, M.D.
1880. Matthew Charteris, M.D.
1897. Ralph Stockman, M.D.

In the courses of instruction and in the scheme of professional examinations prescribed by Ordinance No. 14, the subjects included in the province of this chair comprise the two branches of Materia Medica and Therapeutics. In the summer course of Practical Pharmacy, which it is advisable to take before the winter course, attendance at twenty-five meetings of the class is required. Instruction is given in compounding official preparations, in writing prescriptions, and in dispensing, supplemented by demonstrations of the more important substances in the British Pharmacopœia. The winter course is devoted to Pharmacology and Therapeutics, the official drugs of the British Pharmacopœia being systematically considered in relation to their actions and applications in disease. In addition, lectures are given on the therapeutical aspects of Dietetics, Mineral Waters and Baths, Climate, Electricity, Massage, etc.

Text-books.—The manuals of *Pharmacology* by Dr. W. E. Dixon, and of *Materia Medica and Therapeutics* by Dr. Hale White, Dr. Mitchell Bruce, and Sir William Whitla; *Text-Book of Materia Medica* by Dr. C. R Marshall; *Practice of Medicine*, by Dr. Charteris. More advanced books are: *Therapeutics*, by Dr. H. C. Wood; *Text book of Pharmacology and Therapeutics*, edited by Dr. Hale White; and *Text-book of Pharmacology*, by Dr. A. R. Cushny.

C. The subjects of the *Third Professional Examination* for the Degrees of Bachelor of Medicine and Bachelor of Surgery are taught in the following classes:—

I. PATHOLOGY.

This Chair was founded by Ordinance No. 29 of the Universities Commission (1889) of date 5th June, 1893. The patronage is vested in seven Curators, of whom four are nominated by the University Court and three by the Directors of the Western Infirmary. By agreement with the Western Infirmary, full accommodation and facilities for teaching are provided for the University in the Pathological Institute at the Western Infirmary. By mutual arrangement the Professor is the Pathologist to the Infirmary, and the whole material of that institution is available for teaching purposes.

Before the founding of the Chair, Pathology had been taught by Dr. Joseph Coats, who was appointed Lecturer in 1890, and who also held the office of Pathologist to the Western Infirmary.

Professors.

1894. Joseph Coats, M.D.
1899. Robert Muir, M.A., M.D.

First Assistant—John Shaw Dunn, M.B., Ch.B.
Second Assistant—John Cruickshank, M.B., Ch.B.

The course in Pathology and Practical Pathology extends over a summer and winter session. Students are requested to observe that the course starts in summer, and are recommended not to commence their pathological studies in winter.

In the summer session the class meets for two hours on four days each week. About fifteen lectures of an hour each are given on those subjects of General Pathology which can be conveniently illustrated by histological work, *e.g.*, the degenerations, inflammation, the processes of repair, tumours, etc., and the students thereafter prepare and examine sections of tissue illustrating the subjects of the lectures. The Special Pathology of one or two systems, *e.g.*, the circulatory and respiratory, is treated in a corresponding manner. Demonstrations of Pathological Anatomy are also given. The methods of Bacteriology are taught in small classes of about twenty students.

In the winter session the class meets for an hour daily. There will be (*a*) lectures with demonstrations on general pathology, including the disturbances of the circulation, the general pathology of infection, fevers, etc., (*b*) lecture demonstrations on Tuesdays and Fridays on special pathology. Students who have already attended a full course in pathology may attend these on payment of a fee of £1 1s. (*c*) Meetings for practical work in special histology and bacteriology. Of these there will be about thirty. Tutorial classes are also held during the Session.

The Museum of the Western Infirmary is open to all Infirmary students, and a printed catalogue is provided. The post-mortem examinations, which are conducted from 10 A.M. onwards, are also open to the students. Each student during his curriculum must attend at least twenty post-mortems, and must produce evidence that he has received instruction in the methods of post-mortem examination.

Post-graduate or Laboratory Courses in Practical Pathology and Bacteriology are held in October. These courses are open also to senior students. Particulars may be obtained from the Professor.

Text-books.—A Manual of Pathology by Dr. Joseph Coats, *A Manual of Pathology* by Beattie and Dickson, or a *Text-book of Pathology* by Hektoen and Riesman; *Practical Pathology* by Dr. G. Sims Woodhead; and a *Manual of Bacteriology* by Drs. Muir and Ritchie.

The following works are also recommended: Cohnheim, *Lectures on General Pathology*; Thoma, *Handbook of General Pathology*; and Metchnikoff, *Comparative Pathology of Inflammation.*

II. FORENSIC MEDICINE

This Professorship was created by the Crown in 1839.

Professors.

1839. Robert Cowan, M.D. | 1841. Harry Rainy, M.D.
1872. Pierce Adolphus Simpson, M.A. (Cantab.), M.D.
1898. John Glaister, M.D., D.P.H. (Camb.), F.C.S., F.R.S.E.

This class meets daily from 11 A.M. to 12 noon during the summer session.

The Lectures on Forensic Medicine will, as far as possible, elucidate the application of every branch of Medical Science to the purposes of the law.

In the department of Public Health special attention will be given to the subjects of Air, Ventilation and Heating, Water, Injurious Trades, Law respecting Infectious Diseases, Disinfection, Disposal of Sewage and Refuse, and Sanitation in general.

During the session students will have an opportunity of visiting, along with the Professor or his assistant, the most important public institutions and works in the district dealing with Disposal of Sewage and Refuse, Disinfection, Ventilation, etc.

Demonstrations, macroscopic and microscopic, will be given frequently during the session, illustrating, as far as possible, the whole range of Forensic Medicine and Public Health.

Written and oral examinations (attendance at which is compulsory) will be held at intervals.

In addition, facilities will be given for studying Practical Toxicology in the Medico Legal Laboratory at the University.

Text-books (for Class of Medical Jurisprudence and Public Health). Guy and Ferrier, *Principles of Forensic Medicine*; Dixon Mann, *Manual of Medical Jurisprudence*; Hofmann, *Atlas of Legal Medicine* (English edition, 1898); Glaister, *Text book of Forensic Medicine, Toxicology, and Public Health*, 1902; Glaister, *Manual of Public Health for Students, etc.* (2nd edition, 1905).

PUBLIC HEALTH.

This class will meet four days weekly during the winter session at 12 noon. The lectures will deal with the Sanitation of Dwellings, Medicine in its relation to Public Health, Vital Statistics and Statistical methods, Sanitary Law, etc. (see Ordinance for Degrees in Public Health,

p. 262). The subjects under consideration will, as far as possible, be illustrated by demonstrations, visits to public institutions and public health works in Glasgow and neighbourhood, and by other means. The number of meetings of the class is seventy-five. The class is open, after matriculation and payment of the class fee, to Candidates for the Diplomas in Public Health of the Universities of Cambridge, Oxford, and Durham, and of the English, Scottish, and Irish Colleges. According to the Regulations of the General Medical Council, attendance thereat will be accepted in lieu of the second three months' attendance at the office of a recognised Medical Officer of Health for Practical Sanitation.

Text-books—Balfour and Lewis, *Manual of Hygiene and Public Health*; Parkes and Kenwood, *Manual of Hygiene and Public Health*; Glaister, *Text-book of Forensic Medicine and Public Health*; Robertson and Porter, *Sanitary Law and Practice*; Hime, *Sanitary Law*; Local Government Board for Scotland, *Instructions, Forms, etc., to Local Authorities.*

LABORATORY INSTRUCTION IN PUBLIC HEALTH.—The Public Health Laboratory is under the personal supervision of Professor Glaister and his assistant, and is open from 10 A.M. to 4 P.M., daily, for practical instruction in the methods of analysis of air, water, soils, foods, and the detection of adulterations; and for instruction in practical meteorology, sanitary appliances, physics, and practical bacteriology, in relation to public health.

Air.— Estimation of carbonic acid, by Pettenkofer's and other methods; detection and examination of gaseous impurities; estimation of organic impurity by ammonia and Carnelly's process; microscopic examination of matters in suspension; estimation of humidity, dew-point, and tension of vapour.

Water.—Qualitative and quantitative analysis; microscopical examination of sediments; physical and biological examination; comparison and estimation of value of filtering media and filters; mineral and medicinal waters.

Sewage.—Effects of purification processes; analysis of raw sewage and sewage effluents.

Soils.—Chemical and physical examination.

Foods.—Analysis and detection of adulterants; microscopic examination of food-stuffs; physical, microscopical, and chemical examination of milk; analysis of milk, cream, butter, cheese, and oils used as foods; microscopical examination and chemical analysis of starchy foods, sugars, tea, coffee, cocoa, pepper, etc.; examination of preserved foods and detection of their adulterations.

Disinfectants.—Their valuation and comparison; examination of pigments in articles of attire, wall-papers, and those used in trade.

Bacteriology.—Methods of investigation, cultivation, and transmission; preparation of culture media; bacteriological examination of air, water, foods, blood, earth, etc., micro photographic processes.

Microscopy.—Examination of food substances; parasites—animal and vegetable; crystalline deposits; micro-organisms.

Meteorological Instruments.—Barometer, thermometers, different kinds; rain gauges; anemometers and manometers; hygrometers, and the different forms of these instruments.

The Laboratory is furnished with all the necessary chemical apparatus, etc., required for analysis, and each worker is furnished with a set of apparatus for personally doing the work, and for which he is held personally responsible.

In the Departmental Museum there is a complete collection of model sanitary appliances, including traps; soil stacks; soil pipes; ventilators; meteorological instruments; and an abundant collection of drawings, diagrams, and illustrative tables.

The Laboratory also possesses a large collection of microscopic specimens illustrative of parasites—animal and vegetable—food characteristics, of bacteriology and of tropical diseases.

Visits will be made, as arranged, during the Session, to view and inspect modes of disposal of refuse, sewage disposal, unhealthy trades, etc.

The Laboratory instruction is recognized for the Diplomas in Public Health of the Triple Scotch Colleges, of the English Colleges, and of the Universities of Cambridge, Oxford, and Durham, under the new regulations.

Text-books (for Public Health Laboratory).—Lehmann, *Methods of Practical Hygiene* (English edition), 2 vols.; Parkes, *Public Health Laboratory Work*; Pakes, *Public Health Laboratory Work*; Hewlett, *Manual of Bacteriology*, 1898; Muir and Ritchie, *Manual of Bacteriology*, 1907; Slater and Spitta, *Atlas of Bacteriology*, 1898.

N.B.—(*See under Faculty of Law, p.* 138.)

D. The subjects of the *Final Professional Examination* for the Degrees of Bachelor of Medicine and Bachelor of Surgery are taught in the following classes:—

I. SURGERY.

This Professorship was founded in 1815, and is in the gift of the Crown.

Professors.

1815. John Burns, M.D.
1850. James A. Lawrie, M.D.
1860. Joseph Lister, M.B., F.R.S.
1869. Sir George H. B. Macleod, M.D., LL.D., F.R.S.E.
1892. Sir William Macewen, F.R.S.

First Assistant—John A. C. Macewen, B.Sc., M.B., C.M.
Second Assistant—Spencer Mort, M.B., Ch.B.

The Professor delivers during winter a course consisting of systematic lectures, illustrated by diagrams, casts, and pathological preparations, and of frequent demonstrations. There are three written examinations. The following is a general outline of the course:—Anaesthesia; wounds and their varieties; haemorrhage and its arrest; the phenomena of destruction and repair of tissues; inflammation; surgical bacteriology; infective processes and diseases dependent upon bacteria and their products; neoplasms; injuries, including fractures and dislocations; Regional Surgery.

During summer Operative Surgery is conducted daily, and consists of descriptive instruction by the Professor in the principal operations, and the performance of recognised operations by the students under supervision.

In the course of Clinical Surgery which the Professor conducts both winter and summer at the Western Infirmary, as part of the regular Clinical Instruction given to University students, practical instruction is given in the methods of clinical observation, surgical diagnosis and treatment. The Professor also takes occasion, as far as the material is available, to draw the attention of the students to the points illustrative of the principles taught in the systematic course.

II. CLINICAL SURGERY.

This Professorship was founded by the University in May, 1874. The Professor is appointed by the University Court.

Professors.

1874. George Buchanan, M.A., M.D., LL.D.
1900. Sir Hector C. Cameron, M.D., C.M.

Assistant.

George H. Edington, M.D., C.M.

The Professor teaches Clinical Surgery by "Lectures and other instruction" on the cases of patients affected with injuries, diseases, etc., requiring Surgical treatment.

The class meets daily at 9.15 A.M., both in the summer and winter session, in the Western Infirmary—Wards XXIX. and XXX. (new wing).

III. PRACTICE OF MEDICINE.

This Professorship, created in 1637, but long suppressed for want of revenue, was revived by the College in 1712, and endowed by Queen Anne in the following year. It is in the gift of the Crown.

Professors.

1714. John Johnstoun, M.D.
1751. William Cullen, M.D.
1756. Robert Hamilton, M.D.
1757. Joseph Black, M.D.
1766. Alex. Stevenson, M.D.
1789. Thomas C. Hope, M.D.
1796. Robert Freer, M.D.
1827. Charles Badham, M.D.
1841. William Thomson, M.D.
1852. John M'Farlane, M.D.
1862. Sir W. T. Gairdner, K.C.B., M.D., LL.D., F.R.S.
1900. Sir Thomas M'Call Anderson, M.D.
1908. Samson Gemmell, M.D.

The course is directed to the exposition of the Healing Art in its more practical aspects, having regard to the immensely wide range of diseases usually assigned to the physician and the general practitioner, as opposed to the surgeon and the specialist. The general principles and doctrines which are available at the bedside of the sick are each year carefully and thoroughly considered in connection with such a number and variety of illustrative instances as may be expected to leave a lasting and vivid impression of the essentials of Diagnosis, Prognosis, and Treatment, in so far as these can be advantageously delivered in the form of lectures guided by a systematic plan, conveying not only the opinions of the Professor, but also references to the general history of opinion, and the steps by which the existing knowledge of disease has been built up. Thus, a broad and sufficient basis is obtained for conveying an insight into what may now be regarded as settled medical doctrine, and also, as regards points which cannot be so considered, suggestions as to the direction in which we may reasonably look for guidance in the future. But no attempt is made to give a complete synopsis annually of the details of practice in all departments; for this, the student is of necessity referred to one or other of the current text-books. In summer there is a tutorial class twice a week, open, without fee, to those who have attended the Practice of Medicine class in a previous winter session.

The Professor conducts at the Western Infirmary, both in winter and in summer, part of the regular Clinical Instruction given to the Medical Students of the University.

Tutorial Instruction is carried out by the University Assistants twice a week in the University and several written examinations are held in the course of the winter session. Medals and certificates of distinction are determined upon the basis of these examinations.

A portrait-medal of Sir William T. Gairdner, K.C.B., is awarded to the most distinguished student in the class of Practice of Medicine. The dies for this medal were presented to the University along with a Portrait of the Professor by his former students, on 28th January, 1893.

Text-books.—One of the following is recommended for general use:—Frederick Taylor, *Manual of the Practice of Medicine*; Osler, *Principles and Practice of Medicine*; *A Text-book of Practice of Medicine*, by Fred. T. Roberts; Hilton Fagge's *Principles and Practice of Medicine* is a larger work of great excellence, specially adapted for senior students. Finlayson's *Clinical Manual* is in very general use for hospital work.

IV. CLINICAL MEDICINE.

This Professorship was founded by the University in May, 1874. The Professor is appointed by the University Court.

Professors.

1874. Thomas M'Call Anderson, M.D.
1900. Samson Gemmell, M.D.
1908. ——— ———

The class meets five days a week during the winter and summer sessions, and three or four written examinations are held. On Mondays and Thursdays the Professor gives demonstrations of cases in the wards; and on Wednesdays there is a clinical lecture in the theatre on cases under observation. The clinical tutors meet the class (in sections) on Tuesdays and Fridays for instruction in the investigation of cases and in the use of instruments and apparatus. A ward visit is made by the Professor every day at the close of the regular instruction.

V. MIDWIFERY.

This subject was originally taught as part of the course in Anatomy, but in 1790 the Faculty of the College appointed Mr. James Towers to be Lecturer in Midwifery, and in 1792 assigned him a salary out of the Walton Fund. In 1815 the Chair was founded by George III., and Mr. Towers became the first Professor. The Crown is the Patron.

Professors.

1815. James Towers, C.M.
1820. John Towers, C.M.
1833. Robert Lee, M.D.
1834. William Cummin, M.D.
1840. John M. Pagan, M.D.
1868. William Leishman, M.D.
1894. MURDOCH CAMERON, M.D.

The Lectures embrace the Theory and Practice of Midwifery and the Diseases of Children. The Professor was Physician to the University Lying-in Hospital and Dispensary, an institution which was many years ago established in the neighbourhood of the old College. The altered circumstances of the school having, however, rendered this situation unavailable for Clinical instruction, other arrangements have now been made by which the Managers of the Western Infirmary have placed a ward for the Diseases of Women under the charge of the Professor. Ample opportunity is afforded for Clinical instruction in Midwifery at the Glasgow Maternity Hospital, to which the Professor holds the appointment of Consulting Physician.

A course of lectures on the Diseases of Women is delivered in summer.

E. Candidates for the Degrees of Bachelor of Medicine and Bachelor of Surgery are required also to attend the following courses:—

I. INSANITY.

This Lectureship was instituted by the University in 1880. Great advantages are offered to students for the study of this subject, the Lecturer being Physician Superintendent to the Royal Asylum, Gartnavel, and Physician to the Department for nervous and mental disorders at the Dispensary of the Western Infirmary.

Lecturers.

1880. David Yellowlees, M.D., LL.D.
1905. Landel R. Oswald, M.B.

A course of Lectures is given in the University at 12 noon on Wednesdays during the summer session, and Clinical Instruction at the Asylum, Gartnavel, at 10 A.M. on Saturdays.

For the Mackintosh Mental Science Bursary in connection with this class see "Bursaries."

II. OPHTHALMOLOGY.

The practical course of instruction in Ophthalmology must consist of not less than twenty meetings, of which six may be class-room lectures, and the others shall be for clinical instruction. Such courses are available in the Glasgow Eye Infirmary (174 Berkeley Street and 80 Charlotte Street), and in the Glasgow Ophthalmic Institution (126 West Regent Street). In the Berkeley Street branch of the Eye Infirmary attendance is given daily at 1 P.M. and students may attend twice a week the lectures and the clinique of any of the three surgeons. The same rule holds in the Charlotte Street branch. At the Ophthalmic Institution lectures are delivered during the summer session every Monday at 4 P.M., and practical instruction is given on Tuesday and Friday at 2 P.M. In the case of women students lectures are delivered in the summer session by Dr. A. Maitland Ramsay, in Queen Margaret College every Tuesday and Friday at 4 P.M., and practical instruction is given at the Ophthalmic Institution every Monday and Thursday at 2 P.M.

III. FEVERS.

The course of Clinical Instruction in Fevers must consist of at least ten meetings in a hospital for infectious diseases containing not less than fifty beds. Such instruction is given in the City of Glasgow Fever Hospital, Belvidere. Each student must, before commencing attendance at the Hospital, obtain at the office of Mr. James D. Borthwick, Treasurer, Police Department, 285 George Street, an admission card—Fee, £1 1s.

F. Candidates for the Degrees of Bachelor of Medicine and Bachelor of Surgery are also recommended to attend the following courses:—

I. DISEASES OF THE EAR.

This Lectureship was instituted by the University Court in 1895.

Lecturer.

1895. Thomas Barr, M.D.

Short courses on Diseases of the Ear are conducted in winter and summer. They are of a practical character, and arrangements are made so that each student who takes the course may, in accordance with the recommendation of the Senate under Ordinance No. 14, Section VII., 10 B, attend at least ten meetings for practical instruction. At these meetings the students are taught how to examine and treat the ear, while illustrative cases are regularly demonstrated. In connection with each course a number of lectures are delivered in the University. The practical work is carried on at the Aural department of the Western Infirmary or at the Glasgow Ear Hospital on days and hours to suit as far as possible the convenience of students. As it is not considered desirable that a complete course of systematic lectures be given on this subject, it is understood that a suitable book on Diseases of the Ear should be studied by the student while attending the practical course. It will be arranged that those who are desirous of pursuing the subject further may receive more advanced practical instruction in a second course.

Prizes are awarded to the most proficient students as tested by clinical examination.

Text-books.—*Manual of Diseases of the Ear* (4th Edition, 1909), by Thomas Barr, M.D., and J. Stoddart Barr, M.B.; also, by the same authors, *Guide to the examination of the Ear and Hearing* (1908).

II. DISEASES OF THE THROAT AND NOSE.

This Lectureship was instituted by the University Court in 1895.

Lecturer.

1895. James Walker Downie, M.B., F.F.P. and S.G.

The course of instruction on Diseases of the Throat and Nose is clinical in character, and is conducted in conformity with the recommendation of the Senate under Ordinance No. 14, Section vii., Sub-section 10 b, according to which candidates for graduation in Medicine are recommended to attend a short practical course of ten meetings on this subject. To permit of the necessary sub-division of the class for purposes of practical instruction there is a winter and a summer course, each having about the same number of meetings.

At the beginning of each session, the class meets as a whole at the University on Thursdays at 4 p.m. There the methods of examining the throat and nose, and the apparatus necessary for this purpose, are described and explained: the appearance of the parts in health and as altered by disease is described, as are also the means of treatment, etc.

The class is then divided into sections for practical instruction. These sectional meetings are held at the Western Infirmary (Throat and Nose Department)—one section on Tuesdays, another on Fridays, at 4 p.m. At these meetings each student is afforded every facility for examining the various patients for himself under the supervision of the Lecturer.

In the Lectures at the University fuller instruction than can be communicated in the presence of the patient regarding pathological conditions seen at the Infirmary is given, and these lectures are illustrated by casts and diagrams, stereoscopic photographs and lantern slides, instruments, anatomical and pathological specimens, etc. While regular attendance on the practical instruction at the Infirmary is necessary to obtain a certificate, all members of the class are strongly recommended also to attend the meetings at the University with regularity.

Text-books.—Clinical Manual of Diseases of the Throat (2nd Edition, 1909), by J. Walker Downie, M.B.; *A Handbook of Diseases of the Nose*, by James B. Ball, M.D.

III. DISEASES OF THE SKIN.

The course of instruction on Diseases of the Skin at the Hospital for Skin Diseases is of a thoroughly practical character, and is conducted during the summer session. Arrangements have been made to supply short practical courses in accordance with the recommendation of the Senate under Ordinance No. 14, Section VII., Sub-section 10.

IV. DISEASES OF CHILDREN.

Arrangements will be made for enabling students to carry out the recommendation of the Senate, that each candidate for Degrees in Medicine should attend a short practical course on this subject.

IV.—FACULTY OF LAW.

The Faculty of Law embraces the Chairs of Law and Conveyancing, and also the Chairs of Forensic Medicine and Political Economy. In this Faculty there are also Lectureships on Civil or Roman Law, Constitutional Law and History, Jurisprudence, Public International Law, International Private Law, Mercantile Law, and Evidence and Procedure.

For the information of students proposing to enter the legal profession, whether as Advocates or as Law Agents, it may be stated that by the regulations of the Faculty of Advocates, every intrant to the Faculty is required to produce evidence of being duly qualified (1) in General Scholarship, and (2) in Law. In General Scholarship the possession of any one of certain University degrees, including the degree of M.A. from a Scottish University, is deemed a sufficient qualification. If the intrant does not hold a qualifying degree he is required to undergo an examination in certain specified branches of General Scholarship as to which information may be obtained on application to the Clerk of Intrants to the Faculty. On the expiration of a year after the intrant has been found qualified in General Scholarship, his examination in Law may be proceeded with, subject to these conditions: (1) That he shall not during the year before such examination have engaged in any trade, business, or profession, either on his own account, or as assistant to or in the employment of another; and (2) that he shall produce evidence of attendance, such as is required for admission to examination for a Law degree, in a class of Scots Law and a class of Conveyancing, in a Scottish University, and evidence of the like attendance in a class of (*a*) Civil Law, (*b*) Philosophy of Law and International Law, Public or Private, (*c*) Constitutional Law and History in a Scottish University, or such attendance in another University or School of Law as may seem to the Dean and his Council to be equivalent thereto, and (*d*) Medical Jurisprudence, in a University, or in a School recognised as qualifying for University Degrees. On the production by the intrant of evidence of his having attended the necessary classes (which he may attend in any order he thinks fit), he is examined on (1) Civil Law, (2) Philosophy of Law and International Law, Public or Private, (3) Constitutional Law and History, (4) Medical Jurisprudence, (5) Scots Law, Civil and Criminal, including Procedure, (6) Conveyancing. Information as to the books prescribed may be obtained from the Clerk of Intrants. If, however, the intrant has obtained the degree of LL.B. from a Scottish University after examination in all the subjects above prescribed for examination in Law, and also produces evidence that he has passed an examination in Procedure, he is held qualified in General Scholarship and Law without examination or other evidence of qualification, subject to the conditions that during the year immediately before presenting his diploma to the Examiners, he shall not have been engaged in any trade, business, or profession, as above set forth, and that he shall have duly presented his petition for admission and appeared before the Examiners prior to the commencement of such year. If the intrant has obtained said degree of LL.B. after passing examinations in one or more of the said subjects he is exempt from examination in these subjects. He must pass in at least two of the subjects at one time. The regulations regarding the "Public Examination," which all intrants, whether graduates or not, must undergo, require that the intrant shall write a Thesis on a Title of the Pandects assigned to him by the Dean, and shall defend it on its being impugned. The question as to the intrant's admission is then decided by the Faculty voting by ballot.

Admission to the profession of a Law Agent is regulated by the Law Agents Act, 1873, and by the Law Agents and Notaries Public Act, 1891, and relative Acts of Sederunt of the Court of Session, prescribing rules as to subjects of examination and certain conditions of admission. Information as to the subjects of examination may be obtained from the Clerk to the Examiners. The former Act requires in general that every applicant for admission must have served an apprenticeship of five years with a practising law-agent or with a sheriff-clerk in office at the passing of the Act, which apprenticeship, if entered upon after the passing of the Act, must be served under indenture, recorded and intimated as the Act requires. In certain cases, however, an apprenticeship for three years is allowed as sufficient, the excepted cases including that of a person holding a degree in Law or in Arts of a University in Great Britain or Ireland granted after examination.

The Act of Sederunt of 18th March, 1893, institutes two examinations in General Knowledge, and prescribes the subjects of these examinations and of the examination in Law. By the Act of Sederunt of 21st November, 1902, in any subject to which the certificates or passes apply a Higher or Lower Grade Leaving Certificate issued prior to 1st June, 1902, or a Leaving Certificate or an Intermediate Certificate issued subsequent to that date, or a Pass in either Higher or Lower Grade granted as a step towards a Leaving Certificate, exempts from the first examination in General Knowledge; and a Higher Grade Leaving Certificate issued prior to 1st June, 1902, or a Leaving Certificate issued subsequent to that date, so far as obtained by passing on the Higher Grade, or a Pass in the Higher Grade granted as a step towards a Leaving Certificate, exempts from the second examination. Higher or Lower Certificates of the Oxford and Cambridge Schools Examination Board afford similar exemptions to Higher or Lower Grade Leaving Certificates. Higher Standard Certificates in the Preliminary Examination for M.A. under Ordinance No. 11 exempt from both of these examinations, but an examination in Bookkeeping must be passed. A Lower Standard Certificate in the Preliminary Examination for M.A. under Ordinance No. 11 exempts from the first examination in General Knowledge in any subject to which that Certificate applies, and a Higher Standard Certificate exempts similarly from the second examination in General Knowledge. Certificates entitling to exemption from the first examination must be presented to the Clerk of the Board of Examiners of Law Agents before the commencement of apprenticeship. A candidate for admission as Law Agent is exempted from any examination in General Knowledge, including book-keeping, if (*inter alia*) he hold a Degree of any University in the United Kingdom granted after examination. By Act of Sederunt, 18th March, 1893, a candidate who holds the degree of LL.B. or B.L. of any Scottish University is exempted from any examination in Law, excepting only on Forms of Process, Civil and Criminal. But an Act of Sederunt of 23rd December, 1904, provides that a candidate who holds the Degree of LL.B. or B.L. of any Scottish University who has not passed in the Law of Scotland and Conveyancing, or either of them, for his Degree shall be required to pass a qualifying examination in the omitted subject or subjects to the satisfaction of the Examiners of Law Agents.

The Act of Sederunt dated 11th July, 1899, provides *inter alia*:—(1) The first examination in general knowledge shall be taken before the commencement of apprenticeship, and no person shall be admitted as apprentice under indenture to a Law Agent until he shall have passed the said first examination. (2) The second examination in general knowledge may be taken at any time after the candidate has passed the first examination. (3) A candidate who fails to pass the first or second examination may again offer himself for examination, and shall be re-examined in all the subjects, or such part thereof as the examiners may determine. It shall be in the power of the examiners to fix a time before which a candidate who has failed to pass any examination shall not present himself again for examination. (4) No candidate shall be examined in Law until he has passed the second examination in General Knowledge.

For Regulations as to Graduation in Law, see Index.

LAW.

This Professorship is in the gift of the Crown. After being long in abeyance for want of revenue, it was revived by the College in 1712, and endowed by Queen Anne in the following year.

Professors.

1714. Wm. Forbes, Advocate.
1746. Wm. Cross, Advocate.
1750. Hercules Lindsay, LL.D.
1761. John Millar, Advocate.
1801. R. Davidson, Advocate.
1842. Allan A. Maconochie, Advocate.
1855. Geo. Skene, Advocate.
1867. Robert Berry, M.A., LL.D., Advocate.
1887. Alex. Moody Stuart, LL.D., Advocate.
1905. **William M. Gloag**, K.C., B.A., Advocate.

Scots Law.—The course extends to about 100 Lectures, embracing as full a course of Scots Law in each session as the time will permit, and including, so far as practicable, Lectures on the following subjects:—Sources and Development of the Law of Scotland; Law of Personal and Domestic relations—Marriage—Parent and Child—Succession—Trusts; Law of Property—Landownership—Patents—Copyright; the Law of Obligations and Contracts generally, their Constitution and Extinction, Legality and Illegality—the Law of Sale—Retention and Lien—Loan; Deposit—Pledge—Hiring, and the Law of Master and Servant—Agency—Law of Carriers and Affreightment—Partnership—Cautionary Obligations; Law of Landlord and Tenant; Law of Reparation—Personal injury—Defamation; Law of Diligence and Bankruptcy; Criminal Law, etc.

The text-book recommended to students is Erskine's *Principles of the Law of Scotland* (twentieth edition).

The class meets five days a week—viz., every day except Monday, from 8 A.M. to 9 A.M. At intervals throughout the session the hour is devoted to the ordinary class examinations, which are conducted in writing.

Three Prizes are given by the University for proficiency in the class examinations; and the "Robert Ross Prize," being the free annual income of a sum of £500 bequeathed by the late Robert Ross, Esq., writer, Glasgow, is awarded in equal portions to the head students of the year in this class and in the class of Conveyancing. Prizes are also given by the Faculty of Procurators, generally for distinction in a special written examination towards the end of the session.

As to the Andrew Cunningham Bursary and the Robert Macfarlane Bursary, see Index.

CONVEYANCING.

This Chair was instituted by ordinance of the Universities Commission (1858) of date 15th June, 1861, which was approved by Her Majesty Queen Victoria in Council on 11th October, 1861. The right of appointment to the Chair is vested in the Dean and Council of the Faculty of Procurators, Glasgow.

Professors.

1862. Anderson Kirkwood, LL.D.
1867. Sir James Roberton, LL.D.
1889. James Moir, LL.D., Member of the Faculty of Procurators, Glasgow.

The course extends to about 100 Lectures, and during the session there are both oral and written examinations. As full a course of Conveyancing is given each session as the time permits. The subjects treated will be selected from the following list, viz.: (1) Introductory and Preliminary Lectures. (2) The Feudal and Burgage System, the constitution of Feudal and Burgage Rights, and the transmission thereof by Deeds *inter viros*, or by Judicial Acts. (3) Heritable Securities. (4) Leases. (5) Marriage Contracts, Bonds of Provision, Testamentary Deeds and Deeds of Entail. (6) The completion of Titles, in case of death, to Heritable and Moveable Estate.

The class meets every day, except Monday, from 8 A.M. to 9 A.M.

The text-books recommended are Duff's *Feudal Rights*, with Supplement; *Lectures on Conveyancing*, by Menzies; *Lectures on Conveyancing*, by A. M. Bell; and Craigie's *Statutes*.

Prizes are given for eminence in the class examinations during the session. Prizes are also given by the Faculty of Procurators for distinction in a written examination held towards the end of the session on some of the subjects of the course; and the "Robert Ross Prize," being the free annual income of a sum of £500 bequeathed by the late Robert Ross, Esq., writer, Glasgow, is awarded in equal portions to the head students of the year in this class and in the class of Scots Law.

As to the Andrew Cunningham Bursary and the Robert Macfarlane Bursary, see Index.

FORENSIC MEDICINE.

This Professorship was created by the Crown in 1839.

Professors.

1839. Robert Cowan, M.D. | 1841. Harry Rainy, M.D.
1872. Pierce Adolphus Simpson, M.A. (Cantab.), M.D.
1898. John Glaister, M.D., D.P.H. (Camb.), F.C.S., F.R.S.E.

This course, qualifying for graduation in Law (B.L. and LL.B.), will be delivered during the winter session at 9 A.M., after the Christmas vacation.

Text-books.—Guy and Ferrier, *Principles of Forensic Medicine*; Dixon Mann, *Manual of Medical Jurisprudence*, Glaister, *Text-book of Forensic Medicine*, etc., 1902.

(See under Faculty of Medicine, p. 123.)

POLITICAL ECONOMY.

(See under Faculty of Arts, p. 85.)

CIVIL LAW.

The study of Civil Law in Glasgow is coeval with the establishment of the University. In the University Annals it is recorded that, in 1460, lectures on the Civil Law were delivered in the Chapter House of the Friars Predicators by Master William of Levenax (Lennox). After being for a considerable period in abeyance, the study of the subject was revived in 1712. In the middle of the eighteenth century the lectures were for the first time delivered in English; up to that time the prelections were in Latin. For some years during last century the lectures were once more in abeyance, but in session 1873-74 a class was again formed, and was taught in alternate sessions by the Professor of Law. In 1894 the University Court, carrying out a recommendation of the Universities Commission (1876), instituted a separate Lectureship in the subject.

Lecturers.

1895. J. M. Irvine, LL.B., Advocate.
1907. Hugh R. Buchanan, LL.B.
1909. ——— ———

The course extends to at least eighty lectures. The opening lectures will deal with the Constitutional History of Rome and the history of the development of the law. This part is intended to serve as an introduction to the study of the special departments of the law. The remainder of the course will be devoted to a systematic exposition, in detail, of the various departments of the law, according to the order in which they are treated in Justinian's *Institutes.* The class meets during the winter session, from 8 A.M. to 9 A.M. Attendance at the class is required of all candidates for Degrees in Law (LL.B. and B.L.); it also qualifies for the Degree of M.A.

Text-book.—Institutes of Justinian; Ed., Moyle or Sandars. Reference is also frequently made to *Institutes of Gaius*; Ed., Poste.

CONSTITUTIONAL LAW AND HISTORY.

This Lectureship was instituted by the University in 1878, and the class was taught in alternate years during the summer session, the course extending to forty lectures. In 1894 the University Court, to meet the requirements of the Ordinances for Graduation in Law, placed the Lectureship upon a new footing. The course was extended to eighty lectures, and the class was made a Winter Class, meeting every year. In April, 1900, arrangements were made for extending the course to a hundred meetings for Arts students, and the extended course was recognized as a full course in Arts, qualifying for graduation for the ordinary Degree of M.A., and also for the Degree of M.A. with Honours in History. Attendance on the first eighty lectures of the course is required of all candidates for the Degree of Bachelor of Laws (LL.B.). Attendance on the first fifty lectures of the course qualifies for the Degree of B.L., subject to the conditions laid down in Ordinance No. 40.

Lecturers.

1878. Charles S. Dickson, M.A., Advocate.
1878. Alex. Ure, LL.B., Advocate.
1889. Robert T. Younger, LL.B., Advocate.
1894. WILLIAM S. MCKECHNIE, LL.B., D.Phil.

ORDINARY CLASS.—The course will be partly historical and partly analytical. The historical lectures will trace in outline the development of the Constitution from the Anglo-Saxon migrations to the present reign. The analytical lectures will treat (1) of the safeguards of the rights of individuals, and (2) of the separate parts of the Constitution and the distribution of power in the State.

The text-books are Taswell-Langmead, *Constitutional History*; Dicey, *Law of the Constitution*; and Thomas, *Leading Cases in Constitutional Law.* In addition, students are recommended to refer to Anson, *Law and Custom of the Constitution*; McKechnie, *Magna Carta*; and Bagehot, *English Constitution.*

The hour for the meeting of the class is 4.30 P.M.

HONOURS CLASS.—(See under Faculty of Arts, p. 91.)

GENERAL OR COMPARATIVE JURISPRUDENCE.

This Lectureship was instituted by the University in 1893, under the title Philosophy of Law. The subject was at an early date treated as an integral part of the course of Moral Philosophy, under the name of Natural Jurisprudence. From 1878 it was treated by the Lecturer on Public Law as introductory to that subject.

Lecturers.

1893. William Galbraith Miller, LL.B.
1904. JAMES A. M'CALLUM, LL.B.

The course is given on Mondays, Wednesdays, and Fridays during the winter session. The lectures for 1908-9 will be mainly devoted to the analysis of fundamental legal conceptions and legal classification, the development of law and legal conceptions, and the metaphysic of law. Written exercises will be prescribed.

The class meets at 4.30 P.M. in the Faculty Hall, St. George's Place.

Text-books.—Holland, *Jurisprudence*; Maine, *Ancient Law*; Kant, *Philosophy of Law* (Hastie's translation).

THE LAW OF NATIONS, OR PUBLIC INTERNATIONAL LAW.

In 1878 the University instituted a Lectureship on Public Law. In 1894 the University Court, to meet the requirements of the ordinances for graduation in Law, created separate courses for International Private Law and for Jurisprudence.

Lecturers.

1878. William Galbraith Miller, LL.B.
1904. A. H. CHARTERIS, LL.B.

The course is given on Mondays, Wednesdays, and Fridays during the winter session. The course for 1909-10 will deal with the relations of States in peace, and in greater detail with their relations in war, including the subject of neutrality. Written exercises will be prescribed. Students are expected to be acquainted with the elements of the Civil Law, and to have a general acquaintance with Modern European History.

Text-books.—Hall, *International Law* (5th ed.), or Lawrence, *International Law*; Pearce Higgins, *The Hague Conferences and other International Documents.* The cases referred to in the lectures should be studied in the collections edited by Pitt Cobbett (3rd ed.) or Scott.

The class meets at 5.30 P.M. in the Faculty Hall, St. George's Place.

INTERNATIONAL PRIVATE LAW.

From 1878 this subject was treated as part of the course of Public Law. In 1894 the University Court, to meet the requirements of the ordinances for graduation in Law, instituted a Lectureship on International Private Law.

Lecturers.

1894. William Galbraith Miller, LL.B.
1904. A. H. CHARTERIS, LL.B.

This course is given in the summer session. The lectures discuss the principal doctrines as developed in the decisions of the British Courts compared with the results of Continental Jurisprudence. The subjects comprise History, General Principles, Comity, Public Interest, Nationality and Domicil; and in different sessions some of the following in detail: (1) Marriage, Divorce, Guardianship, and Family Law; (2) Contract, Delict, and Mercantile Law, including Bankruptcy; (3) Succession and Trust Law, Conveyancing and Heritable Rights; (4) Copyright, Trademarks, etc.; (5) Procedure and Evidence; (6) Criminal Law and Extradition; the other subjects being sketched in outline. For purposes of comparison and illustration reference is made to the collections of foreign codes, and to the *Journal de droit international privé*, edited by M. Clunet, all of which will be found in the Library of the Faculty of

Procurators. Students are expected to be familiar with the leading doctrines of the Civil Law and of Scots Law. The class meets five days a week at 8.45 A.M. in the Faculty Hall, St. George's Place.

Text-book.—Rattigan, *Private International Law.* Students are expected to study the Statutes referred to, and certain leading cases prescribed, of which useful collections will be found in Nelson's *Private International Law*, Campbell's *Ruling Cases* (Domicil and Conflict of Laws), Beale's *Cases on the Conflict of Laws.* Dicey's *Conflict of Laws* (2nd ed.) and Westlake's *Private International Law* (4th ed.), will be found useful for reference.

MERCANTILE LAW.

This Lectureship was instituted by the University in 1894.

Lecturers.

1894. James Mackenzie, Member of the Faculty of Procurators, Glasgow.

1900. William Shaw, Member of the Faculty of Procurators, Glasgow.

1907. THOMAS G. WRIGHT, LL.B., Member of the Faculty of Procurators, Glasgow.

This course will extend to eighty lectures. The first half course treats of the Constitution, Transmission and Extinction of Commercial Rights, and includes such subjects as Contract, Agency, Securities, Bills of Exchange, Diligence, and Bankruptcy. The second half course deals with special branches of Commercial Law, such as Partnership, Companies, Banking, Patents and Trade Marks, Carriage, and Insurance. Attendance on the whole course may, subject to the conditions laid down in Ordinance No. 39, be reckoned as qualifying for the Degree of LL.B.; and attendance on forty lectures, constituting a half course, may, subject to the conditions laid down in Ordinance No. 40, be reckoned as qualifying for the Degree of B.L. The majority of the subjects dealt with are suitable for the requirements of students intending to follow the profession of Accountants or Bankers. The class meets at 5.30 P.M. in the Accountants' Hall, 218 St. Vincent Street.

EVIDENCE AND PROCEDURE.

This Lectureship was instituted by the University in 1905.

Lecturer—ROBERT LAMOND, LL.B., Member of the Faculty of Procurators, Glasgow.

The course of forty lectures will describe the principles of the Law of Evidence and the relevancy and kinds of evidence. It will also include a description of the various Courts, the nature of their civil and criminal jurisdiction, the actions and proceedings competent in each and the Procedure followed.

The lectures are delivered on four or five days of the week at 8.45 A.M. during the Summer Session in the Faculty Hall, St. George's Place.

Text-books.—Mackay, *Manual of Court of Session Practice*; *The Sheriff Courts (Scotland) Act*, 1907; Dickson on *Evidence*. Reference will also be made to Statutes and leading cases bearing on the subjects dealt with.

FACULTY OF THEOLOGY.

The Faculty of Theology embraces the four classes of Divinity, Hebrew and Semitic Languages, Ecclesiastical History, and Divinity and Biblical Criticism.

The following regulations are applicable to students preparing for the ministry of the Church of Scotland. Under the Act of General Assembly, 1883, consolidating the Acts presently in force in regard to the study of Divinity, all candidates for the ministry are required to attend at the Divinity Hall either three full and regular sessions, or two full and regular sessions and three partial sessions; and to give at least two full sessions of regular attendance on the classes of Church History, Hebrew, and Biblical Criticism.

The following conspectus shows the order in which the classes should be taken:

FIRST YEAR.

9 a.m.,	Mon., Wed., Fri., - -	New Testament Greek.
10 a.m.,	daily, - - -	Junior Hebrew.
11 a.m.,	daily, - - -	Junior Divinity.
12 noon,	daily, - - -	Junior Church History.

SECOND YEAR.

9 a.m.,	three days weekly,	Honours Hebrew.
10 a.m.,	daily,	Biblical Criticism.
11 a.m.,	daily,	Senior Hebrew.
12 noon,	daily,	Senior Divinity.

THIRD YEAR.

9 a.m.,	Mon., Wed., Fri.,	Honours Hebrew.
10 a.m.,	daily,	Biblical Criticism.
11 a.m.,	daily,	Senior Church History
12 noon,	daily,	Senior Divinity.

Each student, in order to be enrolled *for the first year* of his attendance, must present to the Professor of Divinity, *first*, a certificate from the Presbytery within the bounds of which he usually resides, and by which he has been examined on his knowledge of the Holy Scriptures according to the authorized version, and of the Catechetical Standards of the Church; *secondly*, a certificate signed by the Convener or Vice Convener of the Examining Board appointed by the General Assembly to conduct the examination of students previous to their entering the Divinity Hall.[1] In order to be admitted to this examination he must, in accordance with the Act of Assembly, 1896, produce, in addition to the certificate from the Presbytery recommending him, either (*a*) the diploma of a Master of Arts of a Scottish University, or the diploma of a Bachelor of Arts after an undergraduate course at any British or Irish University, or at any Colonial University at which the course is equivalent to that of a Scottish University, and which shall be approved by the General Assembly on a report from the Committee on the admission of ministers and the status of students of Divinity, or evidence that he has passed the examinations for, and is entitled to receive, such diploma of Master or Bachelor of Arts; or (*b*) evidence that he has passed the Preliminary Examination required of those proceeding to the Degree of Master of Arts in a Scottish University, or such examination as the University authorities recognize as equivalent thereto, and that he has attended some one of the courses required[1] for that degree, and has not only attended the classes of the course, but has duly performed the work of each of them. Students who produce certificates of having passed in any subject with a view to the degree of M.A. at a Scottish University, will be exempted from examination in that subject. All students—graduates as well as non-graduates—will be examined in New Testament Greek, and those whose certificates in their progress to a degree do not cover Greek, Latin, Moral Philosophy, and Hebrew will, in addition, be examined in any or all of those subjects not included. Students who began their Arts course before 1896 are requested to communicate with the Rev. Dr. Smith, Partick.

---

[1] The following are the subjects of examination for October, 1909: LATIN—Livy, Book XXIV.; Virgil, *Æneid* VI.; Prose Composition and translation of unseen passages. GREEK—Xenophon, *Cyrop.* I.; St. Luke's Gospel; translation of unseen passages and Prose Composition. HEBREW—The Grammar—Davidson's *Hebrew Grammar*, Sections 1—31. Genesis, Chapters I. and II., with grammatical questions limited to the sections in the Grammar prescribed. MORAL PHILOSOPHY—General account of Ethical Theories, Ancient and Modern, as in Muirhead, *Elements of Ethics* (University Extension Manual). The examination at Glasgow will take place at the University, 6th and 7th October, 1909, at 10 a.m. each day.

The following are the subjects for October, 1910: LATIN—Livy, Book XXV.; Virgil, *Æneid* XII.; Prose Composition and translation of unseen passages. GREEK—Xenophon, *Cyropædia*, Book II.; St. John's Gospel; translation of unseen passages and Prose Composition. HEBREW, as above. MORAL PHILOSOPHY—Mackenzie's *Handbook*.

For further information and for forms of application apply to the Rev. John Smith, D.D., Manse, Partick.

The student, in order to his enrolment *for each subsequent session* of his course, is required to present to the Professor of Divinity (*a*) a certificate from the Presbytery within whose bounds he chiefly resides, of his having been examined by them on the progress made by him in his studies, and of their satisfaction with the same, as well as (*b*) a certificate from the minister of his parish, or, during a vacancy in the parish, from the moderator of the kirk-session, bearing that he is of good character, and has been engaged in some practical Church work during the year.

At the close of each session every student is required to take with him to the Presbytery certificates from the several Professors, under whom he has studied, of his good conduct and proficiency.

Candidates for licence who have finished a regular course of study in Theology shall be examined as soon as it can conveniently be done after the close of the Divinity session by the Examining Board. "The following shall be the heads of subjects of examination :—(i.) Apologetics, including Natural Theology ; (ii.) Church History ; (iii.) Old Testament Introduction and Exegesis ; (iv.) New Testament Introduction and Exegesis ; (v.) Christian Doctrine." "Students who have passed for the Degree of B.D., and who satisfy the Committee that they have done so, shall be exempted from examination in the subjects covered by the Degree of B.D." The Exit Examination for 1910 will be held at the University on 26th and 27th April at 10 a.m.

---

[1] Any student who has gone through a curriculum in Arts in accordance with the provisions of Ordinance No. 11, but who has not graduated, may on application obtain, at the end of his course, a certificate to that effect at the Matriculation Office on production of his Preliminary Examination Certificate and the necessary Class-tickets duly signed.

The subjects of examination will be

I. *Apologetics.* Flint's *Anti Theistic Theories.*

II. *Church History.* 1. To A.D. 325. 2. Scottish Church History, from Reformation to Revolution.

III. *Old Testament Introduction and Exegesis.* 1. Isaiah xxv.-xxxi. 2. Psalms lxxxv.-c.

IV. *New Testament Introduction and Exegesis.* 1. First and Second Thessalonians. 2. Greek New Testament *ad aperturam.*

V. *Christian Doctrine.*—1. Doctrine of Sin. 2. The Theology of the Epistle to the Hebrews. 3. Confession of Faith.

VI. General Knowledge of the English Bible ; special attention to be devoted to the following books : First and Second Samuel, First and Second Kings, Hosea to Micah inclusive, St. John's Gospel, Acts, The Pastoral Epistles ; Shorter Catechism.

Those who have passed for the degree of B.D. will be examined in I., IV. 2, and V. 3 only.

The Convener of the Board is the Rev. David Paul, LL.D., 53 Fountainhall Road, Edinburgh ; and the Vice-Convener, the Rev. John Smith, D.D., Partick.

By Act VII. of the General Assembly, 1883, students are required to study the art of public reading and speaking under some competent teacher approved by the Faculty of

Theology,[1] during at least one hour a week in each of two sessions, the attendance extending in every case over at least sixteen weeks of the session, and to produce, before being taken on trials, due evidence of such attendance.

By Act IX. of the General Assembly, 1895, it is enacted—"that every student before being taken on trial for licence shall produce evidence of having regularly attended two courses of the Pastoral Lectures provided by the Home Mission Committee."

Each student is required during his curriculum to deliver *six* discourses—viz., an Essay on some head in Divinity, a Homily in English, a Critical Exercise on some portion of the original text of the Old Testament, an Exercise and Addition on some portion of the original text of the New Testament, a Lecture on some portion of Scripture, and a Popular Sermon, with such other exercises as the Professors may think fit to prescribe. No student can be taken on trials for licence by any Presbytery until he has produced, along with class certificates from the Professors of Church History, Hebrew, and Biblical Criticism, a certificate from the Professor of Divinity that the discourses so prescribed have been sustained.

The Faculty of Theology have adopted the following regulations as to the delivery of these discourses:—(1) That the Homily shall be given in to the Professor of Church History at such time as he shall appoint in the *first* session of the student's course; (2) that the Essay on some head in Divinity shall be given in to the Professor of Divinity, and the Lecture to the Professor of Biblical Criticism, in the *second* year of the student's course, at such times as shall be appointed by these Professors respectively; and (3) that the Popular Sermon shall be given in to the Professor of Divinity, the Hebrew Critical

---

[1] For the purposes of the Act of Assembly, and to qualify for the competition for the Dowanhill Prizes, the following teachers are recognised:—Mr. Thomas Harrower, 282 Bath Street; Mr. John Forsyth, Dellburn, Giffnock; Mr. David B. Johnstone, A.Mus., 11 Granby Terrace, Hillhead; Mr. J. Bruce Alston, Albany Chambers, Charing Cross; Mr. Archibald Paterson, 43 Dalhousie Street; Mr. Graham Price, 7 University Avenue, W.; Mr. A. P. Roxburgh, F.E.I.S., 7 Caird Drive, Partickhill; and Mr. J. Crombie Saunders, M.A., 28 Charing Cross Mansions, W. The minimum fee to be charged by each teacher is one guinea when the students are taught in classes. The Faculty of Theology, deeming it desirable that this list should contain the names of those only who are actually engaged in training Divinity students, hereby give notice that the name of any teacher having no students for two successive years will be dropped from the list and not reinstated without a special application to the Senate.

Exercise to the Professor of Oriental Languages, and the Exercise and Addition to the Professor of Biblical Criticism, in the *third* session of the course, at such times as shall be appointed by the several Professors. The subjects of the Discourses will be prescribed by the Professors to whom they are severally to be given in.

DIVINITY.

This Professorship was founded in 1640, and the foundation ratified in Parliament. The Professor is appointed by the University Court.

Professors.

1640-50. David Dickson.
1642-61. Robert Baillie.
1653. John Young.
1669. Gilbert Burnet, D.D.
1671. David Liddell.
1682. Alexander Ross, D.D.
1688. James Wemyss, D.D.
1692. James Wodrow.
1708. John Simson.
1740. Michael Potter.
1744. William Leechman, D.D.
1761. Robert Trail, D.D.
1775. James Baillie, D.D.
1778. William Wight, D.D.
1782. Robert Findlay, D.D.
1811. Stevenson Macgill, D.D.
1840. Alexander Hill, D.D.
1862. John Caird, D.D.
1873. William Purdie Dickson, D.D., LL.D.
1895. William Hastie, D.D.
1903. HENRY MARTYN BECKWITH REID, D.D.

The Classes meet on five days of the week, the Senior Class (for all but first-year men) at 12 noon, and the Junior (confined to first-year men) at 11 A.M. Reading of Holy Scripture and offering of prayer are entrusted every Monday in the Senior Class to third-year men in rotation; and every Friday after Christmas is devoted to reading of sermons by third-year men in that Class, and to criticism of the sermons by the Professor, along with general homiletic and liturgic instruction.

The subjects treated in the three years' course are as follows:

FIRST SESSION.—Theological Encyclopaedia and Methodology: Philosophy of Religion; Apologetics (chiefly the History of Apologetics, ancient, mediaeval, and modern); History of Religion (Comparative Religion); New Testament Theology (*on Fridays*).

Books which may be used.—Davies' *Theological Encyclopaedia*; Caird's *Introduction to the Philosophy of Religion*; Schultz's *Outline of Christian Apologetics*; Jordan's *Comparative Religion*; Adeney's *Theology of the New Testament.*

SECOND SESSION.—Systematic Theology (Dogmatics and Ethics):—Doctrine of Revelation and Doctrine of God; Christian Ethics (*on Wednesdays*); History of Dogmatics (*Fridays up to Christmas*).

Books which may be used.—Marcus Dods' *The Bible: its Origin and Nature*; Ladd's *Doctrine of Sacred Scripture*; Illingworth's *Doctrine of the Trinity*; Newman Smyth's *Christian Ethics*, Part I.; Swete's *Patristic Study.*

THIRD SESSION.—Doctrine of Man and of Sin; Doctrine of the Person and Work of Christ; Christian Ethics (*on Wednesdays*); Origin, Nature, and Authority of Dogma (*on Fridays*).

Books which may be used.—Laidlaw's *Bible Doctrine of Man*; Müller's *Christian Doctrine of Sin*; Pope's *Person of Christ*; Denney's *Death of Christ*; Newman Smyth's *Christian Ethics*, Part II.; Orr's *Progress of Dogma.*

DISCOURSES.—The exercises prescribed for the Divinity Classes are two, viz., in the second session, an essay on some head in Divinity, and in the third session a Popular Sermon (*i.e.* a sermon designed for ordinary public worship).

There will hereafter be *two* class examinations, one before and the other after Christmas.

PRACTICAL TRAINING.

Students of the second and third years are now required by the General Assembly to present to the Professor of Divinity a certificate from some parish minister bearing, in addition to the usual statements, that the student has been engaged in some practical Church work during the past year.

By appointment of the General Assembly, the Home Mission Committee provides a course of six lectures on Pastoral Theology, attendance on which is obligatory for students of the second and third year. The lecturer last year was the Rev. George Anderson, B.D., Minister of Renfrew.

HEBREW AND SEMITIC LANGUAGES.

This Professorship was founded by Queen Anne, 1709, under the title Oriental Languages. It is now designated Hebrew and Semitic Languages, in accordance with Ordinance No. 31 of the Universities Commission (1889) of date 5th June, 1893. The Professor is appointed by the University Court. He is a member of the Faculty of Divinity, and also, since 1893, of the Faculty of Arts.

Professors.

1709. Charles Morthland.
1745. Alexander Dunlop, M.A.
1751. William Rouet.
1753. George Muirhead.
1755. John Anderson, M.A.
1757. James Buchanan, M.A.
1761. Robert Trail, D.D.
1761. Patrick Cumin, LL.D.
1820.[1] Gavin Gibb, D.D.
1831. William Fleming, D.D.
1839. George Grey, D.D.
1850. Duncan H. Weir, D.D.
1877. James Robertson, D.D.
1907. WILLIAM B. STEVENSON, D.Litt.

Hebrew and Arabic are now included among the departments of study for graduation in Arts, and "Semitic Languages" among those for graduation with Honours. In session 1909-10 both Hebrew and Arabic will be two-term subjects (*i.e.* attendance in the classes during the Divinity session will qualify for graduation in Arts). Qualifying half courses may be held in the summer term (see p. 152). Intensive courses will be provided by a combination of ordinary and honours classes. On this subject students should consult the Professor.

The existing regulations of the Church of Scotland require all students of Divinity to give attendance on Hebrew for two sessions.

The following are the arrangements for session 1909-10:—

1.—*Junior Hebrew Class*, meeting five days in the week at 10 A.M.[2] The course includes (1) Davidson's *Hebrew Grammar*, with the Exercises; (2) Readings from the easier books of Scripture; (3) Lectures on Old Testament Literature or Hebrew Archaeology.

---

[1] Dr. Gibb was assistant and successor to Dr. Cumin from 10th October, 1814.

[2] Those who join this Class are expected to have done already an equivalent of Sections 1-30 in Davidson's *Grammar*. If a sufficient number of students present themselves an elementary class will be formed, meeting four or five times weekly, during one term only (the first or the third).

Students presenting themselves for the Arts Preliminary Examination will be expected to know as much as is implied in the work of the Junior Hebrew Class, and will be examined in grammar, and in translation both from Hebrew into English and from English into Hebrew.

II.—*Senior Hebrew Class*, meeting five days in the week at 11 A.M., and two days at 9 A.M. The Course includes (1) Reading of Old Testament books, including some of those prescribed for the degrees of M.A. and B.D.; (2) Exercises in unpointed texts and translations into Hebrew; (3) Revisal and extended study of grammar, including syntax and accents; (4) Lectures on History and Introduction.

The Senior Hebrew is appointed as the qualifying class for graduation in Arts. During the summer term a continuation class, especially intended for B.D. students, will meet five days weekly, at 9 A.M., till the end of May.

III.—*Honours Hebrew Class*, meeting in winter three days weekly at 9 A.M. or some other convenient hour. The course includes lectures on the History and Literature of the Hebrews; reading of some of the books prescribed for the degree examinations; and written exercises in composition. During the summer term an Honours Class will meet five or six times weekly down to the end of May (qualifying half course). In it special attention will be given to post-Biblical Hebrew.

IV.—A class for *Syriac*, to meet two days in the week at 9 A.M., will also be formed, if students offer. The work includes Old Testament Aramaic.

In the summer term a class, meeting four times a week, for the study of Old Testament Aramaic, the Targum of Onkelos, and Comparative Semitic Philology, may be formed.

V.—For *Arabic Classes* see below.

ARABIC LANGUAGE AND LITERATURE.

This Lectureship was instituted by the University Court in 1902.

Lecturer—THOMAS H. WEIR, B.D., M.R.A.S.

I.—An Elementary Class meets three days a week in winter and daily in summer at any hour that may be found suitable.

The work includes study of the grammar with progressive written exercises, and translation from and into Arabic. Text-book: Socin, *Arabic Grammar*. If sufficient students offer, a class will be formed for Persian or for Assyriology.

II. *Ordinary Class.*—This class qualifies for graduation in Arts, and may be taken either in one full course or in two half courses. The subjects of study comprise Grammar and Syntax, selected surahs of the Koran, selections from classical historians and poets, and history of the Arabs and their literature. Text-books: Nallino, *Chrestomathia Korani Arabica*; Brünnow, *Chrestomathie*; Noeldeke, *Delectus Veterum Carminum Arabicorum*; Sale, *Koran*.

III.—An *Intermediate Class* will be formed for students who take a double course in Arabic and are examined on a higher standard for the Ordinary Degree. The work will be similar to that of the Ordinary Class, but more advanced.

IV. *Honours Class*—The subjects of study will be the Koran with commentary, the *Makamat* of Hariri and Hamadani, Arabic Grammar, selections from the early poets. Text-books: Baidawi, *Commentary*, Hariri, *Makamat*, *Majani 'l Adab*, vol. vi., *Al Fakhri* (Derenbourg's Edition); Hamadani, *Makamat*; Wright, *Arabic Grammar*.

V.—*Modern Arabic.*—Instruction will also be given, if required, in modern and colloquial Arabic. Text-books: Green, *Practical Arabic Grammar*; Voller, *Modern Egyptian Dialect of Arabic*; Willmore, *Spoken Arabic of Egypt*; Crow, *Arabic Manual*.

NOTE.—*Semitic Languages are prescribed in the examinations for the Black Theological Fellowship (October,* 1910), *the John Clark (Mile-end) Scholarship* (1911), *and for the Lunfine Bursary (April,* 1911). *For the Oriental Society's Prize in Arabic, see under Prizes.*

ECCLESIASTICAL HISTORY.

The Professorship of Ecclesiastical History was founded by George I., in the year 1716, but no appointment was made to the Chair till the year 1720. The Professor is appointed by the Crown.

Professors.

1721. William Anderson.
1752. William Rouet.
1762. William Wight, D.D.
1778. Hugh M'Leod, D.D.
1809[1]. William M'Turk, D.D.
1841. Jas. Seaton Reid, D.D.
1851. Thos. T. Jackson, D.D.
1874. William Lee, D.D.
1886. Robert Herbert Story, D.D., LL.D.
1898. JAMES COOPER, D.D., D.Litt.

The course extends over two sessions, and embraces two series of lectures as well as written examinations and essays. The Junior and Senior Classes meet at separate hours, the Junior from 12 noon to 1 P.M., the Senior from 11 A.M. to 12 noon.

The subjects treated in the Lectures during the two sessions will be:

I. JUNIOR CLASS.—The History of the Church Catholic from the Day of Pentecost to the close of the Fourth General Council. Books recommended—Mosheim, *Institutes of Ecclesiastical History* (edited by Stubbs); the *Church Histories* of Moeller, Kurtz, Neander, Gieseler, Schaff, and Canon Robertson (the parts covering the period above indicated); Duchesne, *The Early History of the Church*; Harnack, *History of Dogma* and *Expansion of Christianity in the First Three Centuries* (trans. Moffatt); Eusebius, *Ecclesiastical History* (ed. Bright, Oxford, 1881; translation by M'Giffert); *The Teaching of the Twelve*; *The Apostolic Fathers* (ed. Lightfoot); The Library of Ante-Nicene Fathers; Ramsay, *The Church in the Roman Empire before* A.D. *170*, *S. Paul the Traveller and Roman Citizen*, and *The Letters to the Seven Churches*; Pullan, *History of Early Christianity*, and *The Church of the Fathers*; Wordsworth, *The Ministry of Grace*; Puller, *The Primitive Saints and the See of Rome*; Rainy, *The Ancient Catholic Church*; Kelly, *A History of the Church of Christ*; Bright, *Waymarks of Church History* and *The Age of the Fathers*; Mason, *Historic Martyrs of the Primitive Church*; Hefele, *History of the Church Councils*; Percival, *The Seven Oecumenical Councils* (the first Four); Newman, *Arians of the Fourth Century*; Gibbon, *The Decline and Fall of the Roman Empire* (ed. Bury); Hodgkin, *Italy and her Invaders*, vols. I. and II. P. Allard, *Histoire de*

---

[1] Dr. M'Turk was assistant and successor to Dr. M'Leod from 6th March, 1797.

persécutions and *Le Christianisme et l'empire romain de Néron à Théodore.*

II. SENIOR CLASS.—(1) The History of the Church of Scotland; (2) The History of the Church of England; (3) Some Important Epochs in the History of the Church. (*N.B.*—The special subject taken up in Session 1909-10 will be Ecclesiastical History from the Edict of Milan (A.D. 313) to the Coronation of Charles the Great (A.D. 800).

Books recommended: Grub, Cunningham, or Stephen, on the Ecclesiastical History of Scotland; Skene, *Celtic Scotland*; Dowden, *The Celtic Church in Scotland*; Macgregor, *Saint Columba*; Adamnan, *Saint Columba* (edit. Huyshe); The Chronicles of the Picts and Scots; the series "The Historians of Scotland"; W. M. Mackenzie, *Outline of Scottish History*; Joseph Robertson, *Statuta Ecclesiae Scoticanae*; John Knox, *History of the Reformation in Scotland* (ed. Laing); Spottiswood; Calderwood; Baillie; M'Crie, *Knox*; William Robertson, *History of Scotland*; Hume Brown, *History of Scotland* and *John Knox*; Andrew Lang, *History of Scotland*; D. W. Rannie, *A Student's History of Scotland*; W. L. Mathieson, *Politics and Religion in Scotland*, 1550-1695; Haddan and Stubbs, *Councils of Great Britain and Ireland*; Bede, *Ecclesiastical History of England*; Fuller, *Church History of Britain*; Collier, *Ecclesiastical History of Great Britain*; Stubbs, *Constitutional History of England*; Hume, Lingard, Macaulay, Froude, and S. R. Gardiner, Histories of England; Wakeman, *History of the Church of England*; A History of the English Church, edited by Stephens and Hunt; Dixon, *History of the Church of England*; Burnet, *History of the Reformation*; and the books recommended at page 312 for those studying for the Degree of B.D.

The following subjects have been prescribed for *Essays, which must be given in before Nov. 30th*, 1909: (1) Neo-Platonism, considered as a rival of Christianity; (2) the Schism of Colluthus, with special reference to its supposed bearing on Ordination in the Church of Scotland; (3) the Life and Letters of S. Jerome; (4) the Sacred Poetry of Prudentius, with Original Translations in verse of selected pieces; (5) S. Columbanus; (6) Clerical Subscription in Scotland in the Eighteenth Century (Church of Scotland, the Seceders, the Relief Church, and the Scottish Episcopal Church);

(7) The Ecclesiology and Ecclesiastical History of any Parish in Scotland in which the student may have been resident. Marks, up to 100, according to merit, will be assigned (session 1909-10) to the writers of *one* of those essays.

A written examination of the Senior Class (session 1909-1910) will be held not later than 30th Nov., 1909, on Venerable Bede's *Ecclesiastical History of England* and S. Adamnan's *Saint Columba* (which may be read in translations), for which marks up to 100 may be obtained. The marks obtained both for the essay and for this examination will count for the Prize List.

The subjects for Essays to be given in by 30th Nov., 1910, are (1) Testimonies from Gnostic and other heretics prior to A.D. 300 to (α) the Church's acceptance of the Books of the New Testament, and (β) to her belief in the articles of the Apostles' Creed; (2) S. Ambrose, *De Officiis Ministrorum* and *De Fuga Saeculi*; (3) Nestorius, Nestorianism, and the Third Œcumenical Council; (4) the Sacred Poetry of Orientius and Paulinus of Pella, with Original Translations in verse of selected passages; (5) Historical Gleanings from the Letters of Lanfranc and S. Anselm; (6) the *Irenicum* of Dr. John Forbes of Corse; and (7) the Ecclesiastical History and Ecclesiology of any Parish in Scotland in which the student has resided.

DIVINITY AND BIBLICAL CRITICISM.

This Professorship was founded by ordinance of the Universities Commission (1858) of date 25th November, 1861. The Professor is appointed by the Crown.

Professors.
1863. William P. Dickson, D.D.
1873. WILLIAM STEWART, D.D.

This class will meet on five days of the week at 10 A.M.

The course of lectures is arranged to extend over two sessions; and the class should accordingly be attended in two *consecutive* years. It is usually taken in the second and third years of the Divinity course. For due performance of the work of the class a knowledge of Greek, at least of New Testament Greek, is indispensable. (See p. 157.)

The lectures in 1909-10 will treat of the principles of Textual Criticism, and of some portions of New Testament Introduction.

The practical application of the principles of Criticism and Hermeneutics will be illustrated in Exegetical Lectures, and by the reading of portions of the Greek New Testament.

Essays on subjects suggested by the work of the class are prescribed at intervals during the session, and the progress of the students is further tested by examinations, partly oral and partly written.

Class of New Testament Greek.—Those who have not included Greek in their Arts course, or who have not succeeded in making themselves familiar with New Testament Greek, should not fail to attend this tutorial class in the first session of their Divinity course, that they may be in a position to profit by the prelections and exercises in the Biblical Criticism Class during the two succeeding years. The class will meet on three days of the week, viz., Monday, Wednesday, and Friday at 9 A.M. The hour has been fixed to suit the convenience of Students in the first year of the Divinity course. (See time-table on p. 145.)

IV.—ENDOWED DEMONSTRATORSHIPS, ETC.

THE ARNOTT AND THOMSON DEMONSTRATORSHIP IN EXPERIMENTAL PHYSICS.

This Demonstratorship was founded in 1875 by the liberality of Sir William Thomson and Mrs. Arnott, widow of Dr. Neil Arnott, founder of the Arnott Prizes, who invested respectively £2,000 and £1,000 for the purpose of encouraging the study of Experimental Physics in the University of Glasgow. The Demonstratorship is in connection with the Physical Laboratory of the University. The holder is appointed annually by the Professor of Natural Philosophy, subject to the approval of the University Court, and his duties are to perform, and direct in the performance of, experimental researches in the Physical Laboratory, in connection with, and under the direction of, the Professor of Natural Philosophy, to give practical laboratory courses suitable for Medical and Engineering students, and to take part in the teaching of the Natural Philosophy Class, if required by the Professor, and in such way and at such times as may be appointed by the Senatus Academicus of the University.

Demonstrators.

1875. James Thomson Bottomley, M.A., D.Sc., F.R.S.
1899. James W. Peck, M.A.
1903. James Muir, D.Sc., M.A.
1906. James G. Gray, B.Sc.
1908. George E. Allan, D.Sc.

THE MUIRHEAD DEMONSTRATORSHIP OF PHYSIOLOGY.

In January, 1877, the late Dr. Henry Muirhead of Longdales, Bothwell Parish, and afterwards of Cambuslang, presented to the University the sum of £2,100, and in November, 1879, a further sum of £400, to endow a Demonstratorship of Physiology in connection with the Chair of Institutes of Medicine—the main object being the promotion of medical science by the training of young men of suitable capacity to become teachers and investigators of Physiology. The regulations with reference to the appointment are as follows:—

1. That the title of the appointment be "The Muirhead Demonstrator of Physiology."

2. That the holder of the office shall act as an assistant to the Professor of Institutes of Medicine in teaching the classes of Systematic and Practical Physiology and in original investigation.

3. That he shall also be expected and encouraged to engage in independent scientific investigation under the direction of the Professor.

4. That he will not be entitled to conduct any class on his own account without the consent of the Professor.

5. That the incumbent will be expected to devote his entire time to the duties of the appointment.

6. That the appointment be made annually by the Senatus Academicus, with the consent of the University Court, on the recommendation of the Professor of the Institutes of Medicine, who shall furnish evidence to the Senatus of the suitability of the person recommended by him.

Present Demonstrator.

Thomas Graham Brown, B.Sc., M.B.

GRIEVE LECTURESHIP ON PHYSIOLOGICAL CHEMISTRY

The late John Grieve, M.A., M.D., who died at Glasgow on 16th April, 1896, directed his Trustees to hand over to the University the sum of £8000 (less legacy duty) for the foundation of a Lectureship on some subject selected by them after consultation with certain Professors. The subject selected was Physiological Chemistry, and the following scheme prepared by the Senate was approved by the University Court on 9th February, 1905.

1. The bequest of the late Dr. John Grieve shall be applied to the foundation of a Lectureship on Physiological Chemistry in the University of Glasgow, to be called the "Grieve Lectureship on Physiological Chemistry."

2. The capital sum of the bequest shall be invested by the University Court, and the annual revenue shall be the salary of the holder of the lectureship for the time being.

3. The appointment to the lectureship shall be made by the University Court.

4. The appointment shall be for a term of five years, but the lecturer may be re-elected in the discretion of the University Court.

5. The lectureship shall be in connection with the Physiological Department of the University, and accommodation for the lecturer shall be provided in that Department by arrangement with the Professor of Physiology.

6. The lecturer shall not engage in medical or surgical practice during his tenure of office.

7. The duties of the Lecturer shall be as follows:

(1) He shall deliver annually such a course of lectures or give such demonstrations in Physiological Chemistry, on the more advanced aspects of the subject, in its relation to the phenomena of Plant and Animal life, as may from time to time be arranged by the Senate, with the approval of the University Court.

(2) He shall take charge of the laboratory for Physiological Chemistry in the Physiological Department of the new buildings, under the control of the Professor, in terms of Ordinance No. 17, General No. 10; he shall supervise the chemical work of students of physiology preparing for the degree of Bachelor of Science; and generally he shall

give assistance to students or others who may be engaged in researches in Physiological Chemistry.

(3) He shall make arrangements, under the control of the Professor, for the teaching of elementary Physiological Chemistry to students of science and medicine, in terms of the above Ordinance.

(4) He shall prosecute original research in Physiological Chemistry.

Lecturer.—1905. EDWARD P. CATHCART, M.D., D.Sc.

THE WILLIAM BAXTER DEMONSTRATORSHIP IN GEOLOGY.

This Demonstratorship was founded by the Trust Disposition and Settlement of Mr. William Baxter, Hillhead, Glasgow, who died on 20th November, 1888, and bequeathed to the Senate the sum of £2,500, free of legacy duty, the annual income of which, less the cost of management, he directed should be paid half-yearly to the Demonstrator on the joint certificate of the Clerk of Senate and the teacher of Geology for the time being. The Senate are the patrons of the Demonstratorship.

The following Regulations having been drawn by the Senate, were approved by the University Court on 16th June, 1908:—

1. The Demonstratorship shall be held for three years, and shall be open to the candidate who during the period intervening since the preceding appointment was made shall have passed the Degree of B.Sc. with special distinction in Geology, in the Final Science Examination, or, in the event of several candidates obtaining such special distinction, to the candidate whose aggregate marks for the whole subjects of the said degree are the highest; but in the event of no candidate attaining to special distinction in Geology in the Final Science Examination, the Senate may, if they see fit, award the Demonstratorship to the candidate who shall stand highest in the list, but any candidate who fails to obtain at least 60 per cent. of marks in the Department of Geology shall *eo ipso* be disqualified to hold the Demonstratorship.

2. The three years' tenure of office shall be subject to the condition that the incumbent discharges the duties of the office to the satisfaction of the Senate, who have power "to deprive any Demonstrator of his stipend, or a part thereof, should they at any time become dissatisfied with his conduct or his ability

to carry out the duties of his office, or with the discharge of his duties, or for any other reason they may consider sufficient," the Demonstrator having the right of appeal to the University Court in the event of such deprivation.

3. The duties of the Demonstrator shall be:—

(1) To act as Demonstrator in the laboratory classes of the Geological School of the University.

(2) To assist in the field work of the Geological School of the University, and to collect geological materials for the University Collection.

(3) To give at least two evening lectures or demonstrations to members of the Geological Society of Glasgow during each winter session of his Demonstratorship.

(4) To devote during the session three hours a day on such days as there are not excursions or laboratory classes to the arrangement of the Geological Museum and teaching collections, or, should the Professor of Geology prefer, to undertake research work on material in the Hunterian Museum or on any subject connected with West Scottish Geology approved by the Professor of Geology, and to give a course of lectures or other teaching in the summer session.

4. These lectures may be attended (*a*) by matriculated students of Geology, free; (*b*) by any matriculated student not a member of the class of Geology, on payment to the Demonstrator of a fee of £1 1s. for each course, or such higher fee as the University Court may fix; (*c*) by any member of the Geological Society of Glasgow on payment of five shillings in lieu of matriculation fee for the winter or summer session, in addition to the authorized class fee.

5. In the event of no appointment being made, or of the Demonstrator resigning, retiring, or being deprived, the revenue accruing during the period of vacancy shall be added to the capital, and the annual income thereof to the stipend payable to the Demonstrators.

Demonstrator—DAVID P. MACDONALD, 1908.

WALTONIAN MEDICAL LECTURESHIP.

This Lectureship was founded in 1788 by the Rev. Dr. William Walton, Rector of Upton, in the County of Huntingdon, who bequeathed to the Senate for its support the sum of £1000, increased by subsequent accumulations to £2850. The lecturer is required to take for his subject that branch of Medicine or Science connected with Medicine which may be assigned to him by the Governing Body of the University. From 1792 a salary was provided out of the Walton Fund for a lecturer on Midwifery till 1815, when the Chair of Midwifery was founded. From 1816 provision was made in like manner for the teaching of Materia Medica till a Chair in that subject was founded in 1831. After 1831 the lectureship was devoted to the subject of Ophthalmology, but, on the resignation of Dr. Thomas Reid in the end of 1900, the University Court, taking into account that the requirements of Ophthalmology under the new Ordinances were met by the training afforded to students in the Glasgow Eye Infirmary and the Glasgow Ophthalmic Institution, resolved to devote the proceeds of the Foundation to the teaching of some other subject. In 1908 the Carnegie Trust provided £2500 towards the endowment of a Lectureship in Organic Chemistry, and the University Court conjoined with the income of this endowment the revenue of the Waltonian Fund. Hence the holder of both is styled the Waltonian Lecturer and Lecturer on Organic Chemistry.

Lecturers.

Midwifery—1792-1815. James Towers, C.M.
Materia Medica—1816-1831. Richard Millar, M.D.
Ophthalmology—1831-1868. William M'Kenzie, M.D.
Ophthalmology—1871-1900. Thomas Reid, M.D., LL.D.
Organic Chemistry—1908. Thomas S. Patterson, Ph.D., D.Sc.

GIFFORD LECTURESHIP ON NATURAL THEOLOGY.

This Lectureship, as well as similar Lectureships in the other Scottish Universities, was founded in 1887 in accordance with the Trust Disposition and Settlement of the late Adam Gifford, sometime one of the Senators of the College of Justice, Scotland. Lord Gifford directed his Trustees to pay over to the Senatus Academicus of the University of Glasgow the sum of Twenty Thousand Pounds for the purpose of establishing a Lectureship or Popular Chair for promoting, advancing, and diffusing the study of Natural Theology, in the widest sense of that term—in other words, "the Knowledge of God, the Infinite, the All, the First and Only Cause, the One and the Sole Substance, the Sole Being, the Sole Reality, and the Sole Existence, the Knowledge of his Nature and Attributes, the Knowledge of the Relations which men and the whole universe bear to Him, the Knowledge of the Nature and Foundation of Ethics or Morals, and of all Obligations and Duties thence arising." The Senate are the Patrons. The Lecturer is appointed for a period of two years and no longer, but the same Lecturer may be reappointed for other two periods of two years each, provided that no one person shall hold the office of Lecturer in this University for more than six years in all. The Lecturer is subjected to no test of any kind, and he is not required to take any oath, or to emit or subscribe any declaration of belief, or to make any promise of any kind. The Founder expressed a wish that the subject should be treated as a strictly natural science, like astronomy or chemistry. Matriculated students and others may attend the Lectures.

1888. Professor Max Muller.
1892. Principal Caird, D.D., LL.D.
1893. Professor William Wallace, M.A
1895. Principal Caird, D.D., LL.D.
1896. Professor Alexander B. Bruce, D.D.
1900. Edward Caird, D.C.L., LL.D., Master of Balliol.
1903. Professor Emile Boutroux.
1906. Professor A. C. Bradley, LL.D.
1909.

ALEXANDER ROBERTSON LECTURESHIP.

The Rev. Alexander Robertson, a probationer of the Free Church of Scotland, who died at Glasgow on 3rd August, 1899, left the residue of his estate, amounting to £2500, for the endowment of a Lectureship in defence of the Christian Religion. The regulations drawn up by his Trustees—Mr. James Lymburn, formerly Librarian to the University, and the late Rev. James B. Dalgety, Paisley—received the sanction of the University Court on 14th November, 1901, and are as follows:

1. The Lectureship shall be called the Alexander Robertson Lectures.

2. The course shall be held not oftener than once in every two years, and shall consist of not fewer than five lectures.

3. Out of the revenue of the Lectureship Fund the lecturer shall be paid the sum of £100 when the lectures have been delivered, and a further sum of £50, provided he shall have published his lectures within one year of their delivery, and shall have furnished to the Library of the University of Glasgow fifty copies for distribution.

4. The Lecturer shall be appointed by the University Court on the nomination of a Committee consisting of the Principal of the University and of the Professors in the Faculty of Theology; and it shall be in the power of the Committee to nominate, if they see fit, a member of the Faculty of Theology.

5. It shall be the duty of the Court, at least twelve months before the income of the Lectureship Fund shall have reached the sum necessary to pay the remuneration of the Lecturer and the grant for publication of the lectures, to send intimation to that effect to the Dean of the Faculty of Theology, and should the aforesaid Committee fail to nominate any one within six months after receiving the said intimation, it shall be in the power of the Court to proceed of itself to the selection and appointment of a Lecturer.

6. The lectures shall be delivered at such times and in such place or places as the said Committee may appoint. Admission to the course shall not be restricted to matriculated students, but shall be freely open to the general public.

7. All surplus revenue and any balance accruing from the non-publication of the lectures or otherwise shall be added to the capital fund of the Lectureship. But should at any time the biennial income of the fund reach a larger sum than £150, two-thirds of the balance over that amount shall go to augment the emolument of the Lecturer, and one-third to increase the grant for the publication of the lectures.

Lecturers.

1904. John Morrison, D.D.
1906. Ernest F. Scott, M.A.
1908. ANDREW MILLER, M.A.

GRAHAM YOUNG LECTURESHIP IN METALLURGICAL CHEMISTRY.

In 1899 the University Court instituted a Lectureship in Metallurgical Chemistry, and in 1908 the Trustees of the late T. Graham Young, Esq., provided £5000 for its endowment.

Lecturers.

1899. William Carrick Anderson, M.A., D.Sc.
1905. Charles Edward Fawsitt, Ph.D., D.Sc.
1908. CECIL H. DESCH, D.Sc., Ph.D.

THE HASTIE LECTURESHIP.

The friends of the late Rev. William Hastie, D.D., Professor of Divinity in the University, having subscribed the sum of £1000 to perpetuate his memory, resolved on 24th November, 1905, that the fund should be vested in six Trustees, divided into three official and three elected Trustees. The official Trustees are the Principal, the Dean of the Faculty of Theology, and the Professor of Divinity. Should the Professor of Divinity be also Dean, then the third official Trustee is a Professor in the Faculty of Theology, nominated by the Faculty. The other Trustees were elected by the donors from amongst themselves. In certain contingencies vacancies in the elected Trustees are filled up by the Presbytery of Glasgow and the Senate alternately. The subscribers further resolved that a Lectureship to be called the Hastie Lectureship should be founded, its object being to encourage the study of Theology amongst the Ministers of the Church of Scotland. The Lecturer is appointed by the Trustees and holds office for three years, delivering not less than four or more than six lectures, in Glasgow University or elsewhere as the Trustees may determine. Admission to the lectures is free to all. The Lecturer receives the free proceeds of the Fund, and he is bound to publish at least 500 copies of his lectures at his own expense and to present to the Trustees ten copies for distribution.

Lecturer.

1906. REV. DONALD M'MILLAN, D.D.

V.—WOMEN'S DEPARTMENT.

QUEEN MARGARET COLLEGE.

In February, 1892, the Universities Commission issued an Ordinance (No. 18), empowering the Scottish University Courts to make provision within the Universities for the instruction of women, either by admitting them to the ordinary classes, or by instituting separate classes for their instruction. The Council of Queen Margaret College, having considered the provisions of this ordinance, came to the conclusion that the purpose for which the College had been instituted would be best served by making over their work to the University of Glasgow. They accordingly, with the concurrence of the late Mrs. Elder, the proprietrix of the buildings and grounds hitherto occupied by the College, offered to transfer to the University Court these buildings and grounds, and the endowments (present and prospective), on condition that these should be devoted to the establishment and maintenance of University Classes for women exclusively. The University Court, after consultation with the Senate, having resolved to exercise the power conferred by Ordinance No. 18, and to provide University instruction for women mainly by the institution of separate classes, agreed to accept the offer made by Queen Margaret College, and remitted to a Committee to take the necessary steps for completing the transfer. In virtue of this arrangement the teachers in Queen Margaret College were appointed by the University Court, and the students in session 1892-3 were admitted matriculated students of the University. In 1893 the College was dissolved, and the funds were handed over to the University Court, but the name "Queen Margaret College" survives as designating the part of the University buildings and grounds which is devoted exclusively to the education of women.

All women students are required to matriculate and to pay their Class Fees and Examination Fees at Queen Margaret College.

The classes in Queen Margaret College will meet as follows:

NOTE.—For information as to the periods of teaching in the several Faculties see p. 60.

I.—ARTS.

Classes.	*Hours.*	*Class Fees.*		
Latin,	10.15 a.m. or 3 p.m.	£4	4	PROF. PHILLIMORE, Mr. D. Rankin, and Mr. R. Nisbet.
Greek,[1]	8.45 a.m.,	4	4	PROF. DAVIES and Mr. W. Rennie.
Greek[1] (at the University),	8 a.m.,	4	4	
English Language and Literature,	5 p.m.,	4	4	PROF. DIXON and Mr. John S. Smart.
French Language and Literature,	9.45 a.m.,	4	4	M. Charles Martin.
German[2] *Language and Literature*,	11.15 a.m.,	4	4	Dr. Herbert Smith.
German[2] (at the University),	10 a.m.,	4	4	
Italian,	4 p.m.	4	4	Dr. Agnoletti
——, Elementary (see p. 80),		2	2	
Logic,[3]	12.15 p.m.,	4	4	Mr. A. A. Bowman.
Logic,[3] (at the University),	9 a.m.,	4	4	PROF. LATTA.
Moral Philosophy,[4]	3 p.m.,	4	4	Mr. J. W. Scott.
Moral Philosophy[4] (at the University),	8 a.m.,	4	4	PROF. JONES
Political Economy (Do).,	2 p.m.,	4	4	PROF. SMART.
Education (Do.),	4.15 p.m.,	4	4	Mr. William Boyd.
History (Do.),	10 a.m.,	4	4	PROF. MEDLEY.
Mathematics,	8.45 a.m., 2 p.m.,	4 4	4 4	PROF. JACK, Mr. Bell, and Mr M'Arthur.
Natural Philosophy,[5] (*Lectures*) at Univ.,	9 a.m.,	4	4	PROF. GRAY.
Natural Philosophy,[5] (*Lectures and Practical Work*) at Univ (see p. 89),		6	6	
Physical Laboratory, Whole Session (6 hours weekly)		6	6	
———— Half Session, 6 hours weekly)		3	3	
———— ,, ,, (10 hours weekly)		4	4	
Chemistry,	12 noon,	4	4	Dr. H. W. Bolam
Chemical Laboratory (in winter),	9 a.m. to 1 p.m., and 2 p.m. to 5 p.m.	5	5 or 10 10	

II.—MEDICINE.

WINTER SESSION, 1909-10.

Classes.	*Hours.*	*Class Fees.*		
Zoology, Elementary (at University),	9 a.m.	£4	4[6]	PROFESSOR KERR and Mr. Agar.
Zoological Laboratory, Elementary (at Univ.),	11 a.m. or 3 p.m.,	3	3	
Chemistry,	12 noon,	4	4[6]	Dr. H. W. Bolam.
Chemical Laboratory,	9 a.m. to 1 p.m., and 2 p.m. to 5 p.m.	5	5 or 10 10	
Practical Chemistry (after Christmas),	2-5 p.m.	5	5	
Anatomy, Junior,	11 a.m.,	4	4[6]	Dr. T. H. Bryce
—— *Senior*,	3.15 p.m.,	4	4[6]	
Practical Anatomy,	9 a.m. to 5 p.m.,	3	3[7]	

---

[1] Women students may select either class of Greek.

[2] Women students may select either class of German.

[3] Women students may select either class of Logic.

[4] Women students may select either class of Moral Philosophy.

[5] Women students may select any class of Natural Philosophy.

[6] Fee for a second or subsequent session, £3 3s.

[7] Students who have taken two winters and two summers of Practical Anatomy, as well as e Junior and Senior Lecture Courses, may afterwards enrol in Practical Anatomy at £1 1s.

Classes.	*Hours.*	*Class Fees.*	
Physiology (at University),	12 noon,	£4 4[1]	Prof. Noël Paton and Muirhead Demonstrator.
Materia Medica and Therapeutics, (at University),	11 a.m.,	4 4[1]	Professor Stockman.
Pathology, Systematic,	3 p.m.,	4 4[1]	Professor Muir.
Surgery,	4 p.m.,	4 4[1]	Dr. Pringle.
Practice of Medicine,	4 p.m.,	4 4[1]	Dr. W. K. Hunter.
Clinical Surgery,	9 a.m.	(see Hospitals).	
Clinical Medicine,	9 a.m.,	(see Hospitals).	
Midwifery,	12 noon,	4 4[1]	Professor M. Cameron and Dr. S. J. Cameron.

SUMMER SESSION 1910.

Classes.	*Hours.*	*Class Fees.*	
Physics (at University),	11 a.m.,	£3 3	Dr. James G. Gray.
Practical Physics,	9-11 a.m. and 1-3 p.m. (see p. 91),	2 2	Professor Gray.
Botany,	8 a.m.,	4 4[1]	Prof. Bower.
Practical Botany (at University),	1 to 3 p.m.,[2]	3 3	
Practical Anatomy,	9 a.m. to 5 p.m.,	2 2[3]	Dr. T. H. Bryce.
Embryology,	11 a.m., Mon., Tues., Wed., Thurs.,	2 2	
Practical Anatomy and Embryology, if taken together,		3 3	
Practical Pharmacy,	12 to 1 p.m.,	3 3	Professor Stockman.
Practical Physiology (at University),	9–11 a.m.,	4 4[4]	Prof. Noël Paton an Muirhead Demonstrator
Forensic Medicine (at University),	11 a.m.,	4 4[1]	Professor Glaister.
Practical Pathology (at University),	1 to 3 p.m.,	3 3	Professor Muir.
Operative Surgery,		2 2	Dr. Pringle.
Insanity,	12 noon, Wed., University, and 10 a.m. Sat., at Gartnavel.	2 2	Dr. Oswald.
Diseases of the Eye,	4 p.m., Tues. (in Ophthalmic Institute), and Fri. (in Queen Marg. College), and Clinique, 2 p.m. on Mon., Wed., and Thurs.	2 2	Dr. A. M. Ramsay.

Hospitals.—Royal Infirmary—First year, £10 10s. ; Second year, £10 10s. ; si months, £6 6s. ; three months, £4 4s. Royal Hospital for Sick Children—twelv months, £1 1s. Glasgow Maternity Hospital—£3 3s. Belvidere and Ruchill Feve Hospitals, £1 1s.

Science Classes.—Of the subjects above enumerated the following are also in th Faculty of Science, viz.:—Mathematics, Natural Philosophy, Chemistry, Botany Zoology, Geology, Anatomy, Physiology, and attendance upon the lectures and in th practical classes qualifies for graduation in Science.

The Honours Classes in Arts and the Higher Classes in Science at the Universit are open to women.

---

[1] Fee for a second or subsequent session, £3 3s.

[2] Students who are taking no class but Botany may take the Practical Class from 9 t 11 a.m., if notice of their wish to do so is given at the beginning of the session.

[3] Students who have taken two winters and two summers of Practical Anatomy, as wel as the Junior and Senior Lecture courses, may afterwards enrol in Practical Anatomy at £1 1s

[4] For students who have already attended the class the fee for any one of the three section is £1 1s.

The arrangements for the classes in Queen Margaret College are similar to those of the classes for men, with the exception of English, French, German, Logic, and Moral Philosophy, the arrangements for which are as follows:—

ENGLISH LANGUAGE AND LITERATURE.

Professor—W. M. Dixon, M.A., Litt.D., LL.B.
Lecturer—John S. Smart, M.A.
Assistant—Robert Dewar, M.A.

The class will meet daily, except on Fridays and Saturdays, at 3 P.M.

I. Lectures will be given during the session on the following subjects—1. Shakespeare. 2. Milton. 3. The Romantic Revival. 4. The Literature of the Revolution Period and the Early Nineteenth Century. 5. Literary Theory. 6. English Philology.

II. The books and poems set for study will be:—

Chaucer, *Prologue*; Shakespeare, *Macbeth* and *Henry IV.*, Parts I. and II.; Wordsworth, *Resolution and Independence*, *Michael*, *Laodamia*, *Tintern Abbey*; Shelley, *Adonais*; Byron, *Childe Harold*, Cantos III. and IV.; Coleridge, *Ancient Mariner* and *Christabel*; Keats, *Eve of St. Agnes* and *Eve of St. Mark*; Palgrave, *Golden Treasury*.

Those who intend to take the class will find the following books useful for preliminary reading:—

1. Bradley's *Shakespearian Tragedy*, Lee's *Life of Shakespeare*, Raleigh's *Shakespeare*, Dowden's *Shakespeare*, Coleridge's *Lectures on Shakespeare*, *The Age of Shakespeare*, by Seccombe and Allen.

2. Masson's edition of Milton and his *Life*, Mark Pattison's *Milton*, Raleigh's *Milton*.

3. Ward's *English Poets*, Vols. III. and IV., Beers' *History of Romanticism in the Eighteenth Century*, Herford's *Age of Wordsworth*, selections from Wordsworth, Byron, Shelley, and Keats in the Golden Treasury Series, with introductions.

Students who have already taken the ordinary class are permitted to attend lectures on Monday, Wednesday, and Thursday for a fee of £2 2s. Such attendance cannot be reckoned towards graduation.

For the Honours Class, see p. 76. *For the Nichol Memorial Prize, see Index.*

FRENCH LANGUAGE AND LITERATURE.

Lecturers.

1895. Alfred Mercier, L.-ès-L.
1898. Charles Martin, M.A. (Paris), O.A.

Assistant—Léon Pitoy, L.-ès-L. Phil., B.Sc. (Paris).

Students are advised to read the authors mentioned in the syllabus.

The class meets on Tuesdays, Wednesdays, Thursdays, and Fridays at 9.45 A.M. *It is for the most part conducted in French.* The work of the class includes the subjects stated in the syllabus of the class of French Language and Literature at page 76. A tutorial class meets for the improvement of pronunciation and the correction of exercises and essays.

A class library well provided with books of reference is open to students from 9 a.m. till 5 p.m.

Students who take French for purposes of graduation must attend both classes, but students who do not intend to graduate may take the Language Class alone or the Literature Class alone. The fee for the Language Class alone or the Literature Class alone is £2 2s.

Honours Class.—See p. 77.

GERMAN LANGUAGE AND LITERATURE.

Lecturer—Herbert Smith, M.A., Ph.D.

Assistant—Friedrich Broecker.

Ordinary Class.—This class meets at 11.15 A.M., and qualifies for graduation in Arts. The work of the class includes the subjects stated in the syllabus of the class of German Language and Literature at page 78.

Students who do not intend to graduate may take either the Literature Class or the Language Class alone. The fee for one class alone is £2 2s.

Intermediate Class.—See p. 79.

Honours Class.—See p. 79.

LOGIC.

Lecturer—ARCHIBALD A. BOWMAN, M.A.

This class meets at 12.15 P.M., and the course qualifies for graduation in Arts.

The work of the class includes the subjects stated in the syllabus of the class of Logic and Rhetoric at page 82.

MORAL PHILOSOPHY.

Lecturer—JOHN W. SCOTT, M.A.

This class meets at 3 P.M., and the course qualifies for graduation in Arts.

The work of the class includes the subjects stated in the syllabus of the class of Moral Philosophy at page 83.

VI.—SPECIAL STUDY AND RESEARCH.

In Ordinance No. 61, the Universities Commission (1889) made the following regulations for the encouragement of special study and research, and for the appointment of Research Fellows :—

I. It shall be in the power of the Senatus Academicus in each University, with the approval of the University Court, to make regulations under which graduates of Scottish Universities or of other Universities recognized by the University Court for the purposes of this ordinance, or other persons who have given satisfactory proof of general education and of fitness to engage in some special study or research, may be admitted to prosecute such study or research in the University.

II. It shall be the duty of the Senatus Academicus in each University—(1) To receive and decide upon all applications for admission to prosecute special study or research ; (2) To prepare a list of all persons so admitted (hereinafter referred to as Research Students) ; (3) To make regulations for the supervision of their work ; (4) To satisfy themselves from time to time that the Research Students are carrying on their work in the University in a satisfactory manner; (5) To suspend or exclude from any course any student whose conduct or progress is unsatisfactory.

III. Every applicant for admission must send in to the Senatus Academicus a written application stating any degree or other distinction which he has already obtained, the line of study or research which he wishes to prosecute and the probable period of its duration, together with evidence as to his character, capacity, and general qualifications.

IV. Any application for admission shall be in the first instance referred by the Senatus Academicus to the appropriate Faculty, or to a Committee appointed by the Senatus; one member of the Committee shall always be a Professor or Lecturer within whose department the proposed line of study or research falls. No applicant shall be recommended by the Faculty or the Committee who has not satisfied them by examination or otherwise that he is qualified to prosecute the proposed line of study or research, and further—(*a*) That his proposed line of study or research is a fit and proper one; (*b*) That he possesses a good general education; (*c*) That he is of good character; (*d*) That he proposes to prosecute his studies or research during a period to be approved by the Senatus Academicus. The Faculty or the Committee shall make a report to the Senatus Academicus upon each application. It shall also be their duty, subject to the regulations of the Senatus Academicus, to provide for the supervision of the Research Student's work, and to report at least once a year to the Senatus as to his progress and conduct. The Senatus shall then determine whether he shall remain a Research Student.

V. Every Research Student shall be required to matriculate each year, paying the ordinary fee.

VI. Research Students shall have access to and the use of the University Laboratories and Museums, under such conditions as to payment and otherwise as the University Court, after consultation with the Senatus Academicus, may determine.

Under this section the following regulations have been made:—1. In each laboratory each Research Student shall make payment of a sum which is estimated by the Professor as sufficient to cover the ordinary expenses incident to the Research Student's work. Apparatus and material beyond what is included in the ordinary operations of the laboratory shall be charged to the Student, unless the Professor judges that such apparatus and material will be a useful addition to the laboratory. But it shall be in the power of each Professor to propose to the University Court in any particular case that these payments may be remitted in whole or in part. 2. In all matters of discipline the Research Student shall be under the control of the Professor in whose laboratory he works. 3. All papers arising out of work done in a laboratory shall be submitted to the Professor before publication, and in all such publications a due recognition of the laboratory shall be inserted.

VII. The title of Research Fellow may be conferred by the Senatus Academicus, with the approval of the University Court, on Research Students who have shown special distinction. Such title shall not of itself confer any right to stipend, but it shall be in the power of the University Court to provide a stipend of such amount and for such period as it may think fit to any Research Fellow under the powers of Ordinance No. 25, Section XI., sub-section 8.

VIII. (1) The Research Fellows shall be appointed as aforesaid after consideration of the report or reports submitted in terms of Section IV. hereof.

(2) The title of Research Fellow may be conferred either at the commencement of the Research Student's course of study or research, or at any time during its progress, as the Senatus Academicus may determine.

(3) Research Fellows shall retain their title and stipend, if any, for the period during which they are engaged in special study or research in the University, and no longer.

(4) Research Students who have been appointed Research Fellows shall continue to be subject to the conditions above prescribed as to the supervision of their work and the reports to be made thereon.

IX. Nothing herein contained shall prejudice the right of Research Students to such Fellowships, Scholarships, or Prizes as may be open to them by Ordinance or Deed of Foundation.

X. The University Court may, subject to the provisions of Ordinance No. 25, Section XI., sub-section 8, provide such sums as t may think fit in aid of the expenses of special study or research.

RESEARCH WORK IN 1908-09.[1]

Research Students.

Edward S. Russell, M.A.—Cephalopoda (Systematics and Development) collected by the Fishery Cruiser "Goldseeker" under the International Committee for the Investigation of the North Sea.

Annie Louise M'Ilroy, M.D.—The origin of the Follicle Cells of the Ovary.

Anstruther A. Lawson, M.Sc. (California), Ph.D. (Chicago).—The Evolutionary History of the Gymnosperms.

Robert C. Gray.—The Magnetic Properties of the Heusler and other Alloys.

Unjiro Saitow, B.Sc. (Tokyo).—The form of steam jets at various pressures.

Alexander S. Russell, M.A.—The Radio-active changes of Uranium.

George H. Edington, M.D.—Visceral Malformations.

SPECIAL TEACHING BY SCHOLARS AND FELLOWS IN 1907-8.

William Manson, M.A. (*G. A. Clark Scholar*)—Tutorial work in Latin.

Archibald A. Bowman, M.A. (*G. A. Clark Scholar*)—Course of lectures to the Logic Honours Class on early Greek Philosophy.

John M'Whan, M.A. (*G. A. Clark Scholar*)—Course of twenty-one lectures on "The Fourier Series, and their applications to Mathematical Physics," to the Natural Philosophy Honours Class; Research on "Elastic Hysteresis in India-Rubber"; Tutorial Class in Mathematics.

William D. Taylor, M.A. (*G. A. Clark Scholar*)—Short course of lectures to the English Honours Class on the influence of French on English literature during the 17th century.

Octavia J. R. Bennett, M.A. (*Eglinton Fellow*)—Three lectures to the English Honours Class—one on the Poetry of Matthew Arnold, the others on "Spenser as the poet of Elizabethan England."

---

[1] For list of Memoirs and other papers published by members of the Teaching Staff, Research Students, etc., see pages 318-337.

David A. Shepherd, M.A. (*Euing Fellow*)—Tutorial work in Latin and Greek.

Robert A. C. Macmillan, M.A. (*Euing Fellow*)—Seven lectures to the Logic Class on the Philosophy of Berkeley.

John Jackson, M.A. (*Euing Fellow*)—Tutorial Classes for students of Intermediate Honours Mathematics.

John B. Black, M.A. (*Luke Fellow*)—Three lectures on Milton to the English Honours Class.

Alexander S. Small, M.A., B.Sc. (*Metcalfe Fellow*)—Tutorial Class in Mathematics.

Hugh A. Reyburn, M.A. (*Scott Scholar*)—Course of lectures to the Honours Classes in Philosophy on the Dialectic of Kant.

VII.—THE CARNEGIE TRUST FOR THE UNIVERSITIES OF SCOTLAND.

This Trust was created by Mr. Andrew Carnegie of New York, and of Skibo in the County of Sutherland. By a trust-deed dated 7th June, 1901, Mr. Carnegie conveyed to Trustees $10,000,000 Bonds by the United States Steel Corporation, bearing interest at 5 per cent., and directed that one-half of the net income should be applied towards the improvement and expansion of the Universities of Scotland in the Faculties of Science and Medicine, also for improving and extending the opportunities for scientific study and research, and for increasing the facilities for acquiring a knowledge of History, Economics, English Literature, and Modern Languages, and such other subjects cognate to a technical or commercial education as can be brought within the scope of the University curriculum, by the erection and maintenance of buildings, aboratories, class-rooms, museums or libraries, the providing of efficient apparatus, books, and equipment, the institution and endowment of Professorships and Lectureships, including post-graduate Lectureships and Scholarships, more especially Scholarships for the purpose of encouraging research, or in uch other manner as the Executive Committee of the Trustees might from time to time decide.

It is directed that the other half of the income, or such part hereof as in each year may be found requisite, shall be devoted o the payment of the whole or part of the ordinary class fees xigible by the Universities from students of Scottish birth or extraction, and of 16 years of age or upwards, or scholars who have given two years' attendance after the age of 14 years at such schools and institutions in Scotland as are under inspection by the Scotch Education Department. They must have passed the examination qualifying for admission to the classes for which payment of fees is to be made by the Trust. Applications for the payment of fees must be made in the form prescribed by the Committee. The decision of the Committee in all questions of qualification shall be final, and the fees of all applicants declared to be eligible shall in each case be paid by the Committee as they become due to the factors or authorised officers of the Universities. The Committee shall also have power to withhold payment of fees from any student who is guilty of misconduct, or who fails within a reasonable time to pass the ordinary examinations of the University or any of them. Any surplus remaining in any year from the income applicable to this head of expenditure shall be applied to the first head of expenditure. Extra-mural Colleges, Schools, or classes in Scotland, attendance at which is recognised as qualifying or assisting to qualify for graduation shall, on application, be entitled to participate under the first head of expenditure to such an extent as the Committee may from time to time determine, and the students thereof shall be admitted to the privileges of the second half. In the case of schools or institutions in Scotland established to provide technical or commercial education, the Committee may recognise classes which, though outside the present range of the University curriculum, can be accepted as doing work of a University level, and may allow them and the students thereof to participate under both heads of expenditure to such an extent as the Committee may from time to time determine.

Any surplus income which may remain after satisfying the preceding requirements is to be at the disposal of the Committee, who may expend it (1) in establishing or assisting to establish courses of lectures in convenient centres by Professors or Lecturers of the Universities or Extra-mural Colleges or Schools, in Science and the subjects before-mentioned; or (2) for the benefit of evening classes of students engaged in industrial or professional occupations during the day; or (3) in any other way the Trustees may think proper towards furthering the usefulness of the Universities in connection with the purposes expressed in the trust-deed and constitution. The benefits of the Trust are available to students of both sexes.

The Trustees are partly nominated, and there are also *ex officio* and elected members. The following are the nominated members:

The Right Hon. the Earl of Elgin and Kincardine, K.G., P.C., G.C.S.I., G.C.I.E., D.C.L., LL.D., *Chairman.*
The Right Hon. the Earl of Rosebery, K.G., P.C., K.T., D.C.L., LL.D., F.R.S.
The Right Hon. Lord Balfour of Burleigh, P.C., K.T., LL.D.
The Right Hon. Lord Kinnear of Spurness, one of the Senators of the College of Justice.
The Right Hon. Lord Reay of Reay, G.C.I.E., G.C.S.I., D.C.L., LL.D.
The Right Hon. Arthur James Balfour, M.P., D.C.L., LL.D.
The Right Hon. James Bryce, M.P., D.C.L., LL.D.
The Right Hon. Lord Morley, D.C.L., LL.D., F.R.S.
Sir Robert Pullar.
Sir Henry Enfield Roscoe, D.C.L., LL.D., F.R.S.
The Right Hon. Richard Burdon Haldane, P.C., K.C., M.P., LL.D.
The Right Hon. Lord Shaw of Dunfermline, P.C., LL.D.

The following are the *ex officio* members:
His Majesty's Secretary for Scotland.
The Lord Provost of Edinburgh.
The Lord Provost of Glasgow.
The Provost of Dunfermline.

The elected members are four in number, one chosen by the University Court of each of the four Scottish Universities. They hold office for periods of four years, and are at present Principal Sir James Donaldson (St. Andrews), Professor Stewart (Glasgow), Professor Hay (Aberdeen), and Principal Sir William Turner (Edinburgh).

The administration of the Trust is conducted by an Executive Committee of nine members, one of whom is the Chairman of the Trust. Two of the four Trustees elected by the Universities are members of the Executive Committee for the first two years, the other two for the next two years, and so on.

The Executive Committee for the Academic year 1909-10 is as follows:

The Earl of Elgin and Kincardine, K.G., P.C., *Chairman.*
Lord Balfour of Burleigh, P.C., K.T.
Lord Kinnear of Spurness, K.C., LL.D.
Sir Arthur William Rücker, D.Sc., LL.D., F.R.S.
Lord Shaw of Dunfermline, P.C., LL.D.
The Lord Provost of Edinburgh, or an assessor nominated by him, after consultation and with the consent of the Trustees.
The Lord Provost of Glasgow, or an assessor nominated by him, after consultation and with the consent of the Trustees.
Professor Hay, M.D., Aberdeen.
Principal Sir William Turner, K.C.B., M.D., LL.D., Edinburgh.

The offices of the Trust are at the Merchants' Hall, Hanover Street, Edinburgh. *Secretary*, Dr. W. S. M'Cormick; *Treasurer*, Dr. John Ross. All applications should be addressed to the Secretary of the Trust.

The following excerpt from a letter written by Dr. Carnegie to the Earl of Elgin, Chairman of the Trust, explains the intention of the founder:—

"London, *7th June*, 1901.

"My Dear Lord Elgin,

. . . .

"As your Lordship is aware, my desire throughout has been that no capable student should be debarred from attending the University on account of the payment of fees. I believe that the conditions of application ensure a sufficient standard of merit, and I hope that the honest pride for which my countrymen are distinguished will prevent claims from those who do not require assistance, and that the invidious task of enquiring into the circumstances of each candidate need not be imposed upon the Trustees. But, to further mark my personal belief and hope in this matter, I have made provision in the Trust Deed that the Trustees may receive funds from others to be administered along with the funds placed by me. I consider this a valuable clause, believing, from my own experience with young men, that some students in after life may value the privilege of repaying advances received from the Trustees, although these are free gifts. I hope the Trustees will gladly welcome such repayments, if offered, as this will enable such students as prefer to do so to consider the payments made on their account merely as advances which they resolve to repay if ever in a position to do so, and that this will protect and foster the spirit of manly independence so dear to the Scot.

Very truly yours,

ANDREW CARNEGIE."

Payment of Class Fees.

The following are the regulations for beneficiaries of the Trust under its provisions for the payment of Class Fees:

I. Age.—An applicant must be over sixteen years of age.

II. Nationality.—An applicant must be of Scottish birth or extraction, or must have given two years' attendance after the age of fourteen at a school or institution under inspection of the Scotch Education Department.

∵ *The Executive Committee admit the claim of Scottish extraction in the case of an applicant who can give evidence of Scottish birth of one or other of his parents or grandparents.*

III. Preliminary Education.—Applicants qualified under the two previous Regulations will be eligible for payment of University Class Fees if they have obtained a Leaving Certificate of the Scotch Education Department bearing evidence of such Preliminary education as is required by the Universities for entrance upon their respective graduating curricula.

Applicants who have not obtained the aforesaid Leaving Certificate may be considered eligible upon production of evidence of a Preliminary education of equivalent standard.

IV. Course of Study.—Applicants must have had their course of study for each academic year approved by the University Adviser of Studies, or, in Faculties where no Adviser of Studies has been appointed, by the Executive Committee of the Trust.

The Executive Committee reserve the right, after consideration of the special circumstances of each case, to make such further conditions as in their opinion will best secure the educational interests of the applicant in question.

V. Ordinary Classes.—An applicant shall not be eligible for payment of fees of classes belonging to a further stage of his curriculum until he has passed the graduation examinations belonging to a previous stage.

∵ *In the Faculty of Medicine the Executive Committee will make exceptional provision for cases where observance of this regulation is practically impossible.*

VI. Extra-Ordinary Classes.—An applicant shall not be eligible for payment of fees of other than ordinary qualifying classes until he has passed the ordinary graduation examination in the relative subject.

∵ *Special application forms for fees of advanced and honours classes will be supplied by the Secretary to applicants qualified under this regulation.*

VII. Reports of Attendance and Work.—A beneficiary comes under an obligation to submit to the Executive Committee at the end of each session particulars as to his attendance and work, any distinctions he may have gained, and any graduation examinations he may have passed.

VIII. Class Certificates.—A beneficiary also comes under an obligation to refund the fee of any class in which he has failed to obtain a certificate that he has given regular attendance and duly performed the work of the class during the session.

∵ *No payment will be made of fees of classes in which such certificates are not issued by the teacher.*

NOTE.—Applicants for Fees, in writing to the Secretary of the Trust for Application Forms, must name the University and Faculty in which they intend to study, and must state whether they have or have not previously obtained the benefits of the Trust.

Post-Graduate Study and Research.

An important part of the Trust's operations concerns the endowment of Post-Graduate Study and Research, and the Executive Committee have issued certain Regulations defining the purposes for which Scholarships, Fellowships, and Grants in aid of Research are offered, and setting forth the conditions under which they may be held. Nominations for Scholarships and Applications for Fellowships and Grants, must be lodged with the Secretary *not later than 1st May in any year.* The final award of the Executive Committee will be announced in due course; and all Scholarships, Fellowships, and Grants awarded in any year shall date from 1st October, unless expressly stated otherwise.

A student who intends to graduate at the close of the summer session or opening of the winter session may be nominated for a Scholarship, or may apply for a Research Grant on or before the 1st May preceding; but he shall not be eligible to receive either until he has graduated.

The following are the regulations:—

I. SCHOLARSHIPS.

(a) *In Science and Medicine.*

The Executive Committee are prepared to consider applications for Carnegie Scholarships in Science and Medicine on the following conditions:

I. A Scholar must be a graduate of a Scottish University who desires to devote himself to higher study and research in some department of science or medicine.

II. A Scholarship shall be of the annual value of £100, payable by quarterly instalments in advance, the second and subsequent instalments being payable on the receipt of a satisfactory report by the Scholar and a certificate from the authority under whose supervision the Scholar has been working. The Executive Committee reserve power to suspend or withhold payment, if not satisfied with the progress or conduct of the Scholar.

A Scholarship shall not be held along with any other scholarship or position of emolument, except with the sanction of the Executive Committee.

In the event of a candidate holding or obtaining any other scholarship or position of emolument, the Executive Committee may, in place of granting or continuing to grant a Carnegie Scholarship, supplement the amount of such scholarship or emolument so as to bring the income up to at least £100, the candidate thereby ranking, and coming under the same regulations, as a Carnegie Scholar.

III. A Scholar shall ordinarily be expected to devote his whole time to the purpose for which the Scholarship is awarded. If he proposes to undertake other work during his tenure of the Scholarship, he must define such work precisely, and obtain the sanction of the Executive Committee.

IV. A Scholarship shall ordinarily be tenable for one year; but it may be renewed for a second year, if the Executive Committee deem this expedient.

V. A candidate must be nominated by a Professor or Lecturer in a Scottish University, or by a Teacher in Scotland recognised for the purpose of graduation by a Scottish University, under whose supervision, unless other supervision be approved by the Executive Committee, he shall work during his tenure of the Scholarship.

The Nomination Form, to be signed by the nominator and the candidate, must contain information on the following points, all of which will be taken into consideration in estimating the relative claims of candidates:

(1) The age of the candidate, his career as a student, and his knowledge of modern languages.

(2) His special fitness for the work proposed.

(3) His programme of study and research during his tenure of the Scholarship, and where and under whose supervision he proposes to work.

(4) Whether the candidate proposes to undertake other work during his tenure of the Scholarship; and, if so, the character of the work proposed, and the demand on his time which it will involve.

(5) Whether the candidate holds, or expects to hold, any other scholarship or position of emolument; and if so, particulars of the amount and duration of such scholarship or emolument.

(6) The names of two or more authorities, other than the nominator, to whom the Executive Committee may refer as to the qualifications of the candidate.

The nominator must, if required, satisfy the Executive Committee that the candidate, if appointed to a Scholarship, will be provided with the facilities and supervision necessary for carrying out his programme of study and research, and that such information will be furnished on his progress and conduct as may seem expedient to the Executive Committee.

VI. By accepting a Scholarship a Scholar comes under an obligation to submit such reports on the progress of his work as the Executive Committee may require.

VII. Nomination Forms may be had from the Secretary to the Carnegie Trust, The Merchants' Hall, Hanover Street, Edinburgh, to whom all communications must be addressed.

(b) *In History, Economics, and Modern Languages and Literature.*

The Executive Committee are prepared to consider applications for Carnegie Scholarships in History, Economics, and Modern Languages and Literature on the following conditions:

I. A Scholar must be a graduate of a Scottish University, preferably with Honours in at least one of the Groups: History, Economic Science, English, Modern Languages and Literature, who desires at home or abroad to devote himself to higher study and investigation within the scope of these groups of study.

II. A Scholarship shall be of the annual value of £100, payable by quarterly instalments in advance, the second and subsequent instalments being payable on the receipt of a satisfactory report by the Scholar and a certificate from the authority under whose supervision the Scholar has been working. The Executive Committee reserve power to suspend or withhold payment, if not satisfied with the progress or conduct of the Scholar.

A Scholarship shall not be held along with any other scholarship or position of emolument, except with the sanction of the Executive Committee.

In the event of a candidate holding or obtaining any other scholarship or position of emolument, the Executive Committee may, in place of granting or continuing to grant a Carnegie Scholarship, supplement the amount of such scholarship or emolument so as to bring the income up to at least £100, the candidate thereby ranking, and coming under the same regulations, as a Carnegie Scholar.

III. A Scholar shall ordinarily be expected to devote his whole time to the purpose for which the Scholarship is awarded. If he proposes to undertake other work during his tenure of the Scholarship, he must define such work precisely, and obtain the sanction of the Executive Committee.

IV. A Scholarship shall ordinarily be tenable for one year;

but it may be renewed for a second year, if the Executive Committee deem this expedient.

V. A candidate must be nominated by a Professor or Lecturer in a Scottish University, under whose supervision, unless other supervision be approved by the Executive Committee, he shall work during his tenure of the Scholarship.

The Nomination Form, to be signed by the nominator and the candidate, must contain information on the following points, all of which will be taken into consideration in estimating the relative claims of candidates:

(1) The age of the candidate, and his career as a student, including particulars as to his general culture and his knowledge of modern languages.

(2) His special fitness for the work proposed.

(3) His programme of study and investigation during his tenure of the Scholarship, and where and under whose supervision he proposes to work.

(4) Whether the candidate proposes to undertake other work during his tenure of the Scholarship; and, if so, the character of the work proposed, and the demand on his time which it will involve.

(5) Whether the candidate holds, or expects to hold, any other scholarship or position of emolument; and if so, particulars of the amount and duration of such scholarship or emolument.

(6) The names of two or more authorities, other than the nominator, to whom the Executive Committee may refer as to the qualifications of the candidate.

The nominator must, if required, satisfy the Executive Committee that the candidate, if appointed to a Scholarship, will be provided with the facilities and supervision necessary for carrying out his programme of study and investigation, and that such information will be furnished on his progress and conduct as may seem expedient to the Executive Committee.

VI. By accepting a Scholarship a Scholar comes under an obligation to submit such reports on the progress of his work as the Executive Committee may require.

VII. Nomination Forms may be had from the Secretary to the Carnegie Trust, The Merchants' Hall, Hanover Street, Edinburgh, to whom all communications must be addressed.

II. Fellowships.

(a) *In Science and Medicine.*

The Executive Committee are prepared to consider applications for Carnegie Fellowships in Science and Medicine on the following conditions:

I. A Fellow must be a graduate of a Scottish University who has given evidence, preferably by work already published, of capability to advance science or medicine by original research, and who desires to devote himself further to this work.

II. A Fellowship shall be of the annual value of £150, exclusive of such special expenses in connection with his research as the Executive Committee may allow. Payment shall be made by half-yearly instalments in advance; but the Executive Committee reserve power to suspend or withhold payment, if not satisfied with the progress or conduct of the Fellow.

A Fellowship shall not be held along with any other fellowship or position of emolument, except with the sanction of the Executive Committee.

In the event of a candidate holding or obtaining any other fellowship or position of emolument, the Executive Committee may, in place of granting or continuing to grant a Carnegie Fellowship, supplement the amount of such fellowship or emolument so as to bring the income up to at least £150, the candidate thereby ranking, and coming under the same regulations, as a Carnegie Fellow.

III. A Fellow shall ordinarily be expected to devote his whole time to the purpose for which the Fellowship is awarded. If he proposes to undertake other work during his tenure of the Fellowship, he must define such work precisely, and obtain the sanction of the Executive Committee.

IV. A Fellowship shall ordinarily be tenable for two years, the extension to a second year being dependent on the receipt of a satisfactory report by the Fellow on his work during the first year; but it may be renewed for a third year, if the Executive Committee deem this expedient.

V. A candidate must furnish the Executive Committee with nformation on the following points, all of which will be taken into consideration in estimating the relative claims of candidates:—

(1) His age, his career as a student, and his knowledge of modern languages.

(2) His special fitness to conduct the research proposed, and his previous experience, along with any published accounts of work already done.

(3) His programme of research during his tenure of the Fellowship; where he proposes to work; and whether he proposes to work independently or in collaboration.

(4) Whether he proposes to undertake other work during his tenure of the Fellowship; and, if so, the character of the work proposed, and the demand on his time which it will involve.

(5) Whether he holds, or expects to hold, any other fellowship or position of emolument; and if so, particulars of the amount and duration of such fellowship or emolument.

(6) The names of two or more authorities to whom the Executive Committee may refer as to his qualifications.

(7) An estimate, as detailed as is possible, of special expenses, if any, required in connection with the research he proposes to undertake.

VI. By accepting a Fellowship a Fellow comes under an obligation to submit such reports on the progress of his work as the Executive Committee may require.

The publication, in some form, of an account of the results of his research will be expected in all cases.

VII. Application Forms may be had from the Secretary to the Carnegie Trust, The Merchants' Hall, Hanover Street, Edinburgh, to whom all communications must be addressed.

(b) *In History, Economics, and Modern Languages and Literature.*

The Executive Committee are prepared to consider applications for Carnegie Fellowships in History, Economics, and Modern Languages and Literature on the following conditions:

I. A Fellow must be a graduate of a Scottish University, preferably with Honours in at least one of the Groups: History, Economic Science, English, Modern Languages and Literature, who desires to investigate at first-hand, at home or abroad, some historical, social, economic, or educational problem or factor of modern civilisation, and who can give evidence by his previous career and general culture, and also preferably by work already published, of capability to advance knowledge by his proposed investigation.

II. A Fellowship shall be of the annual value of £150, exclusive of such special expenses in connection with his investigation as the Executive Committee may allow. Payment shall be made by half-yearly instalments in advance; but the Executive Committee reserve power to suspend or withhold payment, if not satisfied with the progress or conduct of the Fellow.

A Fellowship shall not be held along with any other fellowship or position of emolument, except with the sanction of the Executive Committee.

In the event of a candidate holding or obtaining any other fellowship or position of emolument, the Executive Committee may, in place of granting or continuing to grant a Carnegie Fellowship, supplement the amount of such fellowship or emolument so as to bring the income up to at least £150, the candidate thereby ranking, and coming under the same regulations, as a Carnegie Fellow.

III. A Fellow shall ordinarily be expected to devote his whole time to the purpose for which the Fellowship is awarded. If he proposes to undertake other work during his tenure of the Fellowship, he must define such work precisely, and obtain the sanction of the Executive Committee.

IV. A Fellowship shall ordinarily be tenable for two years, the extension to a second year being dependent on the receipt of a satisfactory report by the Fellow on his work during the first year; but it may be renewed for a third year, if the Executive Committee deem this expedient.

V. A candidate must furnish the Executive Committee with information on the following points, all of which will be taken into consideration in estimating the relative claims of candidates:—

(1) His age, and his career as a student, including particulars as to his general culture and his proficiency in the above-named groups of study.

(2) His special fitness to conduct the investigation proposed, and his previous experience, along with any published accounts of work already done.

(3) His programme of investigation during his tenure of the Fellowship; where he proposes to work; and whether he proposes to work independently or in collaboration.

(4) Whether he proposes to undertake other work during his tenure of the Fellowship; and, if so, the character of the work proposed, and the demand on his time which it will involve.

(5) Whether he holds, or expects to hold, any other fellowship or position of emolument; and if so, particulars of the amount and duration of such fellowship or emolument.

(6) The names of two or more authorities to whom the Executive Committee may refer as to his qualifications.

(7) An estimate, as detailed as is possible, of special expenses, if any, required in connection with the investigation he proposes to undertake.

VI. By accepting a Fellowship a Fellow comes under an obligation to submit such reports on the progress of his work as the Executive Committee may require.

A Fellow will be expected to submit for publication a thesis or memoir upon the results of his investigation.

VII. Application Forms may be had from the Secretary to the Carnegie Trust, The Merchants' Hall, Hanover Street, Edinburgh, to whom all communications must be addressed.

III. Grants in Aid of Research.

The Executive Committee are prepared to consider applications for Grants in aid of Research on the following conditions:—

I. An applicant for a Research Grant must be a Professor, Lecturer, or Assistant in a Scottish University, a Teacher in Scotland recognised for the purpose of graduation by a Scottish University, or a Scottish University Graduate resident in Scotland.

II. A Research Grant is not intended to take the place of such provision as the University Courts may make out of the Grants for Permanent Equipment under the Scheme of "Grants for five years to the four Universities of Scotland."

III. An applicant must furnish the Executive Committee with information on the following points, all of which will be taken into consideration in estimating the relative claims of applicants:—

(1) His experience in research, with copies of or references to any published papers, or, if he has no papers to offer, with references to two or more authorities who are acquainted with his qualifications.

(2) The nature of the research in which he desires to engage, and the results expected to follow therefrom.

(3) The period over which the proposed research is likely to extend, and the approximate amount of time which he expects to be able to devote to it.

(4) A statement of special requirements for the proposed research, with a detailed estimate of the cost.

(5) Whether he has received, or is receiving, any grant from any other source for the same object; and if so, what results have already ensued from his investigations.

IV. By accepting a Grant an applicant comes under an obligation to send to the Executive Committee, when required, a report containing—(*a*) a brief statement (not necessarily for publication) showing the results arrived at, or the stage which the inquiry has reached; (*b*) a statement of the expenditure incurred; and (*c*) copies of or references to any papers in which results of the research have been printed.

The publication, in some form, of an account of the results of the research will be expected in all cases. In the publication of any work for which financial assistance has been received from the Trust, due acknowledgment of such assistance shall be made, and Scholars and Fellows under this Scheme shall use the title "Carnegie Research Scholar" and "Carnegie Research Fellow" respectively.

V. Instruments of permanent value purchased by means of the grant shall, at the conclusion of the research or at such other time as the Executive Committee may determine, be placed under the care and at the disposal of the institution in which the research has been conducted, provided that the Executive Committee may, if they see fit, request their return.

All apparatus of permanent value provided by the Trust for purposes of research shall be labelled and catalogued as be longing to the Trust, and an account of such apparatus shall be sent annually to the Executive Committee.

VI. An application for a Grant to two or more collaborators in the same research must be signed by each; but they shall appoint one of their number who shall be responsible for furnishing the report, for receiving and disbursing the money, and in general for the conduct of the research.

VII. Application Forms may be had from the Secretary to the Carnegie Trust, The Merchants' Hall, Hanover Street, Edinburgh, to whom all communications must be addressed.

The following Graduates of Glasgow University have been appointed to Carnegie Scholarships and Fellowships:—

Scholars:—1903—Thomas B. Morley, B.Sc. (Physical); Alexander Matheson, M.A., B.Sc., M.B., Ch.B. (Pathological); M. Logan Taylor, M.B., Ch.B. (Pathological). 1904—Robert T. Leiper, M.B., Ch.B. (Biological); Janie H. M'Ilroy, M.A., B.Sc., M.B., Ch.B. (Pathological); William G. Rodger, M.B., Ch.B. (Pathological). 1905—Thomas D. Mackenzie, B.Sc. (Chemical); Robert D. Watt, M.A., B.Sc. (Agricultural); Muriel Robertson, M.A. (Biological); Janie H. M'Ilroy, M.A., B.Sc., M.B., Ch.B. (Pathological); Ivy M'Kenzie, M.A., B.Sc., M.B., Ch.B. (Pathological); Constance H. M. Archibald, M.A. (Economical). 1906—Neil M'Arthur, M.A., B.Sc. (Physical); Thomas D. MacKenzie, B.Sc. (Chemical); David Thomson, M.A., B.Sc. (Chemical); Muriel Robertson, M.A. (Biological); Robert D. Watt, M.A., B.Sc. (Agricultural); Ivy M'Kenzie, M.A., B.Sc., M.B., Ch.B. (Pathological); William P. M'Pherson, B.Sc. (Pharmacological); W. Blair M. Martin, M.B., Ch.B. (Pathological); Elizabeth T. Talbert, M.B., Ch.B. (Physiological); George S. Gordon, M.A. (Historical). 1907—James Barr, B.Sc. (Engineering); Andrew M'Millan, M.A., B.Sc. (Chemical); Daisy A. M. Clark, B.Sc., M.B., Ch.B. (Pathological). 1908—James Barr, B.Sc. (Engineering); John Malcolm, B.Sc. (Naval Engineering); Murray Macgregor, M.A., B.Sc. (Geological); Dorothy E. Lindsay, B.Sc. (Physiological); George H. Wilson, M.B., Ch.B. (Pathological); John A. Falconer, M.A. (Historical).

Fellows:—1904—Dougald B. M'Quistan, M.A., B.Sc. (Physical). 1905—Carl H. Browning, M.B., Ch.B. (Pathological); Dougald B. M‘Quistan, M.A., B.Sc. (Physical); Alfred Walter Stewart, B.Sc. (Chemical). 1906—Alfred Walter Stewart, B.Sc. (Chemical); Carl H. Browning, M.B., Ch.B. (Pathological); Constance H. M. Archibald, M.A. (Economical). 1907—Alfred Walter Stewart, D.Sc. (Chemical); Muriel Robertson, M.A. (Biological); Ivy M‘Kenzie, M.A., B.Sc., M.B., Ch.B. (Pathological); W. B. Martin, M.B., Ch.B. (Pathological); Constance H. M. Archibald, M.A. (Economical). 1908—Muriel Robertson, M.A. (Biological); Ivy M‘Kenzie, M.A., B.Sc., M.B., Ch.B. (Pathological); W. B. M. Martin, M.B., Ch.B. (Pathological).

The following members of the Teaching Staff and Graduates of Glasgow University resident in Scotland received Grants in aid of Research:—

IN PHYSICS.

John S. Nicholson, B.Sc., 1903-4.
James B. Henderson, D.Sc., 1904-5.
Robert A. Houstoun, M.A., Ph.D., D.Sc., 1907-8.
Alexander D. Ross, M.A., B.Sc., 1908-9.
Robert Jack, M.A., B.Sc., 1908-9.

IN CHEMISTRY.

W. Carrick Anderson, M.A., D.Sc., 1903-4.
G. G. Henderson, M.A., D.Sc., 1903-4, 1904-5, 1908-9.
Thomas S. Patterson, D.Sc., Ph.D., 1906-7, 1907-8.
Frederick Soddy, M.A., 1906-7, 1908-9.

IN GEOLOGY AND PALAEONTOLOGY.

George W. Tyrrell, A.R.C.S., 1907-8.
David T. Gwynne-Vaughan, M.A., 1907-8, 1908-9.

IN ZOOLOGY.

Edward J. Bles, B.A., B.Sc., 1905-6.
Professor Graham Kerr, 1906-7.

IN EMBRYOLOGY.

Thomas H. Bryce, M.A., M.D., 1905-6, 1906-7, 1908-9.

IN ANATOMY.

Albert A. Gray, M.D., 1907-8.

IN PHYSIOLOGY.

Walter K. Hunter, M.D., D.Sc., 1903-4.
Alexander MacLennan, M.B., C.M., 1903-4.
Edward P. Cathcart, M.D., D.Sc., 1906-7, 1907-8, 1908-9.
Professor Noël Paton, 1907-8.
Thomas G. Brown, B.Sc., M.B., Ch.B., 1907-8, 1908-9.
George H. Clark, M.B., Ch.B., 1907-8, 1908-9.
Annie Louise M'Ilroy, M.D., 1907-8, 1908-9.

IN PATHOLOGY.

Professor Muir, 1903-4, 1904-5, 1906-7, 1907-8.
Carl H. Browning, M.D., 1908-9
Alexander G. Banks, M.D., 1908-9.
W. B. Inglis Pollock, M.D., 1904-5, 1905-6, 1906-7.
James K. Love, M.D., 1903-4, 1904-5, 1905-6, 1906-7.

IN PHARMACOLOGY.

Professor Stockman, 1904-5.

IN HISTORY AND LITERATURE.

Rev. P. H. Aitken, B.D., B.Sc., D.Litt., 1907-8, 1908-9.
George Macdonald, M.A., LL.D., 1907-8.
Rev. George Henderson, M.A., B.Litt., Ph.D., 1907-8, 1908-9.
Rev. William Stevenson, M.A., 1908-9.

VIII.—LIBRARIES, MUSEUM, BOTANIC GARDEN.

UNIVERSITY LIBRARY.

The University Library was founded in the fifteenth century. It contains an extensive and valuable collection of books. The Librarian is appointed by the University Court. The Library is under the immediate superintendence of a Committee consisting of three members of the University or others, not being members of Senate, appointed by the University

Court, and of six members of Senate appointed by the Senate. All reports by this Committee are, in the first instance, received by the Senate, and the Senate has power, subject to the review of the University Court, to confirm, modify, or reject the recommendations in such reports.

The Library is always increasing by donations and by a grant of £707 per annum, formerly paid by the Treasury, as compensation for the loss of the Stationers' Hall privilege, and now received from the University Court. It receives also a grant of £100 annually for scientific periodicals from the Bellahouston Trustees. The Carnegie Trust has allocated to the library a grant of £1000 for each of the five years from 1st October, 1908.

During recent years the Library has acquired several valuable collections. Amongst these the most important are the following:—

The Collection bequeathed to the University by the late W. Euing, Esq., amounting to about 15,000 volumes. It contains many books printed in the fifteenth and sixteenth centuries, illustrated books, English literature, Classics, above 2,000 Bibles, and a very large number of Psalm and Hymn books.

The library of the late Sir William Hamilton, Professor of Logic in the University of Edinburgh, amounting to about 8,000 volumes. This collection, which consists principally of Classics, editions of Aristotle, and treatises on Logic and Metaphysics, was purchased by private subscription and presented to the University. A list of the subscribers was inserted in the *Calendar* for 1879-80.

The Walker-Arnott Botanical library of 970 volumes.

The Musical library of the late Thomas L. Stillie, Esq., numbering 760 volumes. It contains the works of the chief composers, many of them in score, and an extensive series of modern operatic compositions, continental and English.

The collection of books on Palestine, which belonged to the late Dr. A. B. M'Grigor, consisting of 655 volumes of works, illustrating the natural and civil history, topography, and antiquities of Jerusalem and the Holy Land. This collection was presented along with 83 volumes, containing about 1,000 pamphlets, by Alexander M'Grigor, Esq.

The library of the Rev. A. K. MacCallum, LL.D., containing over 3,000 volumes, bequeathed to the University—along with an annual sum of £10 to be spent on its increase—as the nucleus of a Celtic library.

A collection of works, numbering over 600 volumes, relating to Mediaeval Philosophy, which formed part of the library of the late PROFESSOR VEITCH—presented by Mrs. Veitch.

A selection, consisting mainly of theological works and amounting to about 3,800 volumes, from the library of the late REV. ALEXANDER ROBERTSON, who also left the residue of his means to found a lectureship in the University in defence of the Christian religion; 800 volumes of general literature from the library of the late F. A. ECK, ESQ.; over 1,000 volumes—selected from the library of the late JAMES HOTSON, merchant—presented by DR. THOMAS REID; 700 volumes, including extensive histories of the Netherlands, books on universities and schools, and many theological works, presented by Professor J. E. B. MAYOR, D.D.; a complete copy of Migne's *Patrologia* in 388 volumes, presented along with an oak bookcase by the subscribers as a memorial of the late Dr. W. P. DICKSON, Curator of the Library; about 500 volumes from the library of the late Professor HASTIE, D.D.; and 746 Volumes (including 84 Volumes containing 1556 Pamphlets) published at the University Press—presented by JAMES MACLEHOSE, M.A., F.S.A.

The custody and management of the Library are regulated by Ordinance No. 64, and by the rules framed under that Ordinance and approved by the University Court on 14th November, 1895. The following are the principal regulations relative to the use of the Library:—

Books shall not be given out except to the borrower in person, or to some one having written authority from him.

It shall be in the power of the Librarian at any time to withdraw any work from circulation, subject to appeal to the Library Committee; and to call in any book from any borrower after the lapse of the period for which such borrower is entitled to retain it, upon receiving a written request to do so from any person entitled to the use of the Library. In the notice of recall a period of not less than three clear days shall be allowed for making the return, and the penalties leviable for neglect shall be specified in the notice.

The following classes of work, viz.:—Manuscripts, rare books or books in any way difficult to be replaced, works of reference, separate maps or plates, unbound music or parts of works, pamphlets or books not sufficiently protected by the binding, shall not be given out except on an order of, and under conditions to be fixed by, either (*a*) the Senate, (*b*) the Library Committee, or (*c*) three Members of the Library Committee, according as, in the discretion of the Librarian, the special circumstances of each case may require.

Each member of the following classes of readers shall be allowed to borrow, and to have in his, or her, possession at one time the undermentioned number of volumes, but not more :—

Each Member of the Senatus Academicus, thirty volumes.

Each University Lecturer, twenty volumes.

Each Assistant and Examiner, and each holder of a Teaching Fellowship, fifteen volumes.

The Librarian, ten volumes ; and each Assistant Librarian, five volumes.

Each Extra Academical Teacher, recognised by the University Court, in the town in which the University is situated, ten volumes.

Each retired Principal or Professor, ten volumes.

Each Member of the University Court, during his tenure of office, ten volumes.

Each Member of the General Council of any Scottish University (and each Graduate under the age of twenty-one years) in each year in which he, or she, shall have paid a subscription to the Library of ten shillings and sixpence, six volumes.

Provided that no Member of the University Court or of the General Council shall be entitled to obtain from the University Library books required by the teachers or students of the University in the prosecution of academic work and research, and that it shall be in the discretion of the Librarian, subject to appeal to the Library Committee, to decide from time to time what books are so required.

Any Member of the General Council of any Scottish University shall be allowed to compound for the Library subscription by a single payment of Five Guineas, which shall secure to him, or her, for life the same privileges as would accrue from the annual payments.

It shall be in the power of the Library Committee from time to time to grant the use of the Library to persons who may not be Members of the University, for purposes of literary research, and the names of those privileged readers shall be reported annually to the University Court. All grants under this section shall terminate with the close of the reading year, but shall be renewable if again applied for. Each special reader shall pay an annual subscription of ten shillings and sixpence, and shall be entitled to borrow six volumes at one time, but not more.

Subject always to the provisions as to the return of books for the annual inspection, all persons entitled to the use of the Library under the foregoing regulations shall have the right to retain each book borrowed during the winter session for one month, and each book borrowed during the summer session for two months, from the date of borrowing ; and may further retain each book until it shall have been recalled by the Librarian.

Every Matriculated student, or other Student admitted by ordinance to the use of the Library, shall be entitled to have in his, or her, possession at one time, during the winter session, four volumes but not more, and during the summer session and vacation, six volumes but not more. Every student shall have the right—subject to the return of books for the inspection—to retain any book during the winter session for two weeks, and during the summer session for four weeks, from the date of borrowing, and may further retain each book until it shall have been recalled by the Librarian. But no student shall be permitted to borrow any book from the Library until he, or she, shall have lodged with the Librarian a deposit of £1 in security for the due return of the books and the payment of any fines which may be incurred.

During the winter session such students only as are attending the English Literature classes shall be allowed to borrow works of fiction in English, and then only to the extent of two volumes at one time. During the summer session and vacation students may borrow three volumes of fiction at one time, but not more.

The reading term for Students, Members of General Council, and Special Readers, shall begin with the commencement of the winter session in each year, and terminate with the close of the autumn vacation following.

Readers shall not be allowed to borrow books in more than one capacity.

A general inspection of the Library shall take place in April, beginning with the seventh, and continuing for eight lawful days thereafter.

All works whatever, and by whomsoever borrowed, shall be returned to the Library before the beginning of the period of the annual inspection under the penalties hereinafter mentioned. The Library shall be wholly closed during the time of the inspection.

If any person shall retain any volume after the commencement of the period of the annual inspection, such person shall incur a fine of one shilling for each volume; and in the event of any volume not being returned before the close of one week after the last day of the inspection, the fine shall be repeated from week to week until the volume is returned, or until the total amount of the fine shall have reached the sum of ten shillings.

If any person, when required by the Librarian to return a book, shall fail to do so before the expiry of the time specified in the notice, such person shall incur a fine of one shilling for each volume, and thereafter a further penalty of sixpence per day so long as the volume is not returned, or until the total amount of the fine shall have reached the sum of ten shillings.

The Librarian is instructed forthwith to report to the Library Committee all cases in which he shall find that books have been mutilated, disfigured by writing on the margin, or otherwise injured, while in the possession of readers; and persons guilty of such offences shall be liable to replace the injured books, and shall be fined or suspended from the privileges of the Library at the discretion of the Committee.

So long as any Library subscription or any fine incurred remains unpaid, and so long as any person continues in possession of a book which he is not entitled to retain, the right of the defaulter to the use of the Library shall be suspended and remain in abeyance.

All readers borrowing books from the Library must obtain them from, and return them to, the Assistant-Librarians in the ante-room on the days and during the hours when the Library is open.

Persons other than students who wish to consult books in the Library will be accommodated in the First Bay of the Lower Hall.

Visitors on giving their names will be conducted over the Library by an attendant.

The Library is open for the borrowing and return of books on Mondays, Tuesdays, Wednesdays, Thursdays, and Fridays from 10 till 5 o'clock, except during the months of July and August when it is open from 10 till 2. On Saturdays it is open from 10 till 1, except in the months of July and August when it is wholly closed. The Library is closed during the time of the Annual Inspection in April. During the Christmas holidays it is open from 10 till 3 o'clock, except on Christmas and New Year's Days and on Saturdays.

Additional Regulations approved by the University Court, viz. Nos. 1, 2, 3, 4 on 1st October, 1903, and No. 5 on 2nd November, 1905 :—

1. The members of the Court, the Library Committee and the Teaching Staff and all readers (other than matriculated students) entitled to borrow books without payment of subscription, shall have the privilege of free access to the open shelves and to the recent numbers of current periodicals, during the hours when the Library is open.

2. Similar free access shall also be given to matriculated Research Students and to such Carnegie Scholars and Fellows as become members of the University, provided in all cases that they shall have first become readers in the Library and made the usual deposit.

3. The same privileges may be granted to a limited number of matriculated Students who shall be specially recommended to the Library Committee as likely to make a good use of them, on the following conditions :

(*a*) The recommendation shall be in writing. It must be signed by a University Professor or Lecturer and bear that it is based on personal knowledge. All recommendations shall cease to be valid at the end of the Autumn Vacation.

(*b*) No recommended Student shall be admitted to free access unless he is a member of the Library, and has made the usual deposit.

4. Members of the Library Committee and readers under the second of these Additional Regulations shall be allowed to borrow ten volumes at one time, but not more.

5. The privilege of free access to the interior of the Library may be granted by the Library Committee to a limited number of members of the General Council, who are readers in the Library, provided they have satisfied the Convener that they are engaged in such special study as would make the use of the privilege an important advantage to them. The grant in this case shall not expire with the close of the autumn vacation.

The following regulations made by the Library Committee in regard to borrowing books from the Simson and the Hamilton collection, were reported to the Senate on 1st December, 1904 :—

Subject to the general restrictions upon, and regulations regarding, the borrowing of books from time to time in force—

(1) No book shall be lent out of the Simson Collection without an express order, in writing, of the Library Committee.

(2) Any Professor, Lecturer, or University Assistant in the Department of Mental Philosophy in the University shall be entitled to borrow from the Hamilton Collection, on presenting a requisition in writing to the Librarian for the book or books wanted.

CATALOGUES.

The General Alphabetical Catalogue may be consulted in the Catalogue Room by Readers, on application to the Librarian.

Students and Graduates who are engaged in special research may, on similar application, have access to the Classified Catalogues. These catalogues were arranged by the late Professor Dickson, who held the office of Curator of the Library, and the expenses incurred by him in connection with their preparation were defrayed by the late Dr. A. B. M'Grigor.

READING-ROOM.

In connection with the Library, a Reading-Room, provided with a special collection of books of reference for the use of Matriculated Students, is open for readers, Saturdays and holidays excepted, during the winter session from 9 A.M. till 4 P.M., and during the summer session from 9 A.M. till 2 P.M.

The Room is primarily intended for readers consulting the books of the Special Collection ; but, so far as the accommodation will allow, students may make use of it for individual private study. The following are the principal rules applicable to the Room :—

Every Matriculated Student who shall at the beginning of the session or thereafter record (in a book kept by the Librarian) his desire to use the Reading-Room in accordance with the rules for consulting of books or private study, will receive a voucher entitling him to admission. No student will be admitted to the use of the Room without possessing a voucher.

All readers are required to abstain from talking, whispering, or any other form of distracting or disturbing others, and to enter and leave the Room (and Vestibule) with as little noise as possible. Readers shall exhibit their vouchers when asked; and shall at once give their names and matriculation numbers, if they shall be requested to do so.

Each student, desirous of borrowing books from the Special Collection in the Vestibule, is required to fill up one of the receipt papers with his name, matriculation number, and the title of the book or books wanted, and to present it to the Assistant-Librarian in charge. Students are not permitted to have the use of more than two volumes at one time. The books received are to be used only in the Reading-Room, and are to be returned by the receiver himself into the hands of the Assistant-Librarian. The return of books by those who have to leave the room at the end of any hour is to be made not later than five minutes before that time, and during that interval no books will be given out.

Books of reference not included in the Special Collection, but contained in the General Library, may be obtained for consultation in the Reading-Room on presenting a paper with the name and matriculation number of the reader making the request, and the title of the book wanted, to one of the Assistant-Librarians in the Library.

The Assistant-Librarian in charge, Mr. William G. Macdonald, is instructed to report at once to the Library Committee the name of any student transgressing the rules.

Donations to the University Library.

List of Donations from 1st March, 1908, to 28th February, 1909.

Lady M'Call Anderson.—75 volumes, principally of medical literature, from the library of the late Professor Sir Thomas M'Call Anderson.

The Misses MacLehose, Glasgow.—73 volumes of general literature from the library of the late Mr. James MacLehose.

Mrs. David Macrae, Maxwell Park.—72 volumes and 12 pamphlets of theological literature from the library of the late Rev. David Macrae.

An anonymous donor.—276 volumes, chiefly of Celtic literature, from the library of the late Dr. MacBain of Inverness.

Mr. David Murray, LL.D.—50 bound volumes of pamphlets from the library of the late Sheriff Rampini.—Classici Italiani, 240 volumes.—Lauder, Directions for taking and curing herrings.—Abel, Koptische Untersuchungen.

Mr. James MacLehose, M.A.—39 volumes of general literature and 27 volumes for the University Press Collection.

Professor Lucien Gautier, D.D., Geneva.—11 volumes of his own works, beautifully bound in quarter morocco.

The Principal.—32 volumes, 14 pamphlets, and the current parts of 13 Periodicals.

Professor Bower, F.R.S.—A Cingalese MS.—Blair, A short history of the Glasgow Technical College (Weaving Branch).—2 pamphlets.—30 volumes and 32 parts of Periodicals.

Professor Sir Hector C. Cameron, M.D.—Bericht über die Thätigkeit des Temporären Lazareths am Golitzyn Hospital in Moskau.

Rev. Professor Cooper, D.D.—5 volumes and 30 pamphlets.—4 volumes and 19 parts of Periodicals.
Professor Gray, F.R.S.—Life of Lord Kelvin.—Lord Kelvin, an oration.
Professor Jack, LL.D.—Proceedings of the London Mathematical Society for 1908-9.
Professor Kerr, M.A.—'Nature' for 1908-9.
Professor Latta, D.Phil.—Harrison, Platonism in English poetry.
Emeritus-Professor M'Kendrick, F.R.S.—1 volume and 33 pamphlets.—1 volume and 2 parts of Periodicals.
Professor Phillimore, M.A.—Luria, Tikkun Shelomoh, Amsterdam, 1774-5.—Oxford University, Reports of University Institutions, 1907.
Emeritus-Professor Ramsay, LL.D.—Proceedings on the occasion of the presentation to the University of Glasgow of the portrait of Emeritus-Professor G. G. Ramsay, November 6, 1907.
Rev. Professor Reid, D.D.—The layman's book of the General Assembly, Vols. I.-IX.
Professor Stockman, M.D.—Phillips, Collected papers on pharmacology and therapeutics.
Mr. William Boyd, M.A.—The English Association. Leaflet No. 7.
Dr. J. Walker Downie.—The Medico-Chirurgical Society of Glasgow, 1814-1907.
Dr. Charles E. Fawsitt.—The Electrochemist and Metallurgist. IV. 1-2.—Proceedings of the Faraday Society. Vols. I.-IV.—Transactions of the Faraday Society. Vols. I.-III.
Drs. T. K. Monro and Leonard Findlay.—Notes on the course of the cerebello-olivary fibres.
Mr. T. B. Morley, B.Sc.—6 volumes on engineering and shipbuilding.
Mr. William Rennie, M.A.—The Acharnians of Aristophanes. With introduction . . . by W. Rennie.
Dr. John H. Teacher.—Contributions to the study of the early development and imbedding of the human ovum.
Rev. T. H. Weir, B.D.—Schloegl, Libri Samuelis Hebraice.—Zwemer, Islam: a challenge to faith.—Moses Ben Maimon, Band I.—Die Propheten des alten Bundes, erklärt von Heinrich Ewald. In drei Bänder.
'Agricola.'—Philosophy in religion.
Dr. Otto Aichel, Santiago.—Eine neue Hypothese über Ursachen und Wesen bösartiger Geschwülste.
The Alexander Robertson Trustees.—Scott, The apologetic of the New Testament.
Colonel Allardyce, Aberdeen.—Verbum Sempiternum, by John Taylor.
M. Auguste Angellier.—Dans la lumière antique; les épisodes, première partie.
Mr. J. Craig Annan.—Brown, The Glasgow School of Painters.
Mr. H. Ashton, Paris.—Du Bartas en Angleterre.
M. le docteur F. Aurigo.—Désormais plus de Variole.
The Baird Trust.—Nicol, The four Gospels in earliest church history.
Mr. Thomas W. Balch, Philadelphia.—The law of Oresme, Copernicus, and Gresham.—L'évolution de l'arbitrage international.
Professor Bayley Balfour, F.R.S., Edinburgh.—History of the Royal Botanic Garden, Edinburgh: principal gardeners.
M. Louis Barbé.—Schlumberger, L'Epopée byzantine á la fin du dixième siècle. 2 vols.
Dr. Francisco de la Barras, London.—6 scientific pamphlets in Spanish.
Sir John Wolfe Barry, K.C.B.—A Lecture.
The Bishop of Moray, Ross and Caithness.—Anglican Communion Offices and comparative liturgiology.
Mr. William George Black, Glasgow.—A note on the family of Black of Over Abington, 1649-1908.—Winter days in the East.
Mr. George T. Bliss, New York.—Cockburn, A pious meditation on the Lord's Prayer.
Rev. Robert Borland, D.D., F.S.A. (Scot.), Yarrow.—Yarrow, its poets and poetry.—Border raids and reivers.
Mr. Timothy Bost, Glasgow.—The charitable institutions of Laforce.
M Emile Boutroux, Paris.—Science et religion dans la philosophie contemporaine.
Mr. George H. Brocklehurst.—Hunting, Glanders, 1887.—The art of horse-shoeing.—Glanders, 1908.
Rev. John Brownlie, D.D., Portpatrick.—Hymns and hymn-writers of the Church

Hymnary.—Hymns from the East.—Hymns from the Greek Church.—Zionward.—Pilgrim songs.—The rest of God.—Hymns of our pilgrimage.

Mr. William S. Bruce, LL.D., Edinburgh.—The Scottish National Antarctic Expedition. Scientific results of the "Scotia," 1902-4. Vol. IV.

Dr. W. Sohier Bryant, New York.—15 pamphlets on aural subjects.

Rev. Islay F. Burns, M.A., Cambridge.—Westminster College, Cambridge.—Presbyterian Church of England. Official Catalogue; College Jubilee Exhibition.

J. K. C.—The education riddle answered.

Rev. Colin Campbell, D.D.—The Gardener's Tomb at Thebes.

Mr. David W. B. F. Campbell.—Wild flowers plucked by the wayside.

Dr. John Campbell, Belfast.—Clinical Gynaecology, [illegible]

Rev. J. C. Carrick, B.D., Newbattle.—The Abbey of St. Mary, Newbattle.

Rev. W. H. Carslaw, D.D.—Exiles of the Covenant.

Herr B. Cassirer, Berlin.—Arnold's, Gesammelte Schriften. IV., 1.

Dr. A. K. Chalmers.—The growth of cities in relation to town planning.

Chicago University Press.—Association of American Universities, 1907-8.

Mr. G. H. Cockburn, F.E.I.S., Paisley.—The Baxter Book of St. Andrews, 1548-1861.

The Combe Trust.—5 volumes on medical and educational subjects.

Il Comitato per le Onoranze a Ulisse Aldrovandi.—Onoranze a Ulisse Aldrovandi . . . 1907.

Conseil permanent pour l'Exploration de la Mer.—Bulletin et Supplement. Publications de circonstance, [illegible]

Mr. John Coutts.—The divine order of development.

Mr. James Croil, Montreal.—Genesis of churches in the United States of America.

Messrs. Cruickshank & Fairweather, International Patent Agency.—The law of patents. Design and trade mark.

Mr. Alexander A. Cuthbert, St. Andrews.—Memories of Carlestown.

Mr. John S. Davies, Liverpool.—The mechanism of the solar system.

Miss Kate Davis.—Due Poesie di Elizabeth Barrett Browning tradotte da Miss Kate Davis et Francesco di Silvestri Falconieri.

Deutscher Verlag für Volkswohlfahrt.—Rose, The use of shower baths in schools in England and abroad.

Mr. Daniel Dewar.—Atmospheric movements, 1908-9.

Rev. Dr. Downer, London.—A speech delivered by the Rev. A. C. Downer.

Mr. T. D. Dunn, M.A.—English epical theory and the heroic poem.

Dr. Henry Dyer.—Eighth Financial and Economic Statement of Japan, 1908.

Expédition antarctique, Belge.—Resultats du voyage du S.Y. "Belgica," [illegible]

Dr. Francesco di Silvestri-Falconiere.—Sulle relazioni fra la Casa di Borbone e il Papato nel secolo XVIII.—Rumberg, Patria nostra.

M. Y. Fedortchouk, Paris.—Sembratovytch, Le Tsarisme et l'Ukraine.

M. Louis Fiaux, Paris.—La Police des Moeurs devant la Commission extraparlementaire du regime des moeurs.

The First Church of Christ, Scientist, Glasgow.—The life of Mary Baker Eddy.

Mr. Henry Frowde, Oxford.—Curzon, Frontiers (The Romanes Lecture, 1907).

Mr. T. Campbell Futers.—The mechanical engineering of collieries. I., [illegible], and II.

Herr August Gerber, Cologne.—Album von Original Abgussen und Reproduktionen klassischer Skulpturen.

Mr. H. B. Godlover, Berkeley, California.—Pacific tidings.

Mr. James Grant, LL.B.—4 pamphlets on Banffshire. The French invasion of Scotland two hundred years ago.

Mr. James Green, Worcester, Mass.—Personal recollections of David Henry Chamberlain, once Governor of South Carolina.

Mr. Samuel A. Green, Boston.—The two hundredth anniversary of the birth of Benjamin Franklin.

Messrs. Harmsworth Brothers, Ltd.—The Harmsworth History of the World. Parts 11-37.

Mr. G. L. Houston, F.G.S.—The Quarterly Journal of the Geological Society for 1908-9.

The Hungarian Exhibition, Earl's Court: Educational Section.—5 pamphlets relating to Hungary.

Herr August Hunicke, St. Louis, U.S.A.—The chemical engineer.

The International Correspondence Schools, London.—Kendall, The "I.C.S."; a successful educational experiment.

Japan, Imperial Earthquake Investigation Committee.—Bulletin. Vol. II.
Mr. Hakon Jensen, Copenhagen.—On the inward mechanism of heavenly bodies.
Mr. C. M. Jones, Columbus, Ohio.—Mexican earthquakes.
Mr. Francis Knight.—The biography of John Baverstock Knight.
The Leigh-Browne Endowment.—Kenealy, The failure of vivisection.
Mr. Eduardo Lembcke, London.—Enock, The Andes and the Amazon.
Dr. L. Lewin, Berlin.—Pharmakologische und toxicologische Untersuchungen, Abhandlungen und Werke, 1874-1907.
Liceo de Heredia.—Andrés Carnegie.
Mr. Gaston Lichtenstein.—Early social life in Edgecombe.
Mr. Frederick H. Line, Purleigh, Essex.—Illuminated MS. by Frederick Hall Line.
Rev. Henry C. M'Cook, Philadelphia.—Dedication of Mackenzie Memorial Park.
Mr. Henry N. MacCracken, Harvard University.—Quixley's Ballades Royal.
Mr. George MacDonald, LL.D.—Tijdschrift voor Munt- en Penningkunde. XVI.
Professor Magnus MacLean, D.Sc.—6 volumes and 268 pamphlets of scientific literature.—The Electrical Engineer. XLVI, 10-26, and XLVII. 1-16.
Dr. Alexander Maclennan.—Paton, The new serum therapy.—Münchener medizinische Wochenschrift.
Mr. A. Manow, Chicago.—Thy Kingdom come.
The Master and Fellows of Gonville and Caius College, Cambridge.—Catalogue of the MSS. in the Library of Gonville and Caius College, 2 vols.
Dr. Mayer, Antwerp.—The effects of Kronenquelle water.
Rev. Professor Mayor, D.D., Cambridge.—The Church of Scotland; St. Johns, 6th December, 1908.
Mr. M. S. Mayon, F.R.C.S., London.—Hunterian Lectures, 1905.
Miss Teresa Merz.—The Junto.
Dr. H. W. Middledorp.—Le bacille de Kish.
Rev. Joseph Miller, B.D.—Sermons.
Mr. William A. Munro.—Charles Dickens et Alphonse Daudet.
Mr. David C. Nimmo, Detroit, Mich.—Songs.
Messrs. James Nisbet & Co., Ltd., London.—Nisbet's Medical Directory, 1908.
M. Ernest Nys, Brussels.—Droit international et franc-maçonnerie.
Dr. E. H. Lawrence Oliphant.—10 volumes of medical and general literature.—Transactions of the Obstetrical Society. Vols. XXXVI.-XL.
Mrs. L. L. A. Panter.—The Swan of Doon; a poem to Robert Burns.
Mrs. J. Bell Pettigrew.—J. Bell Pettigrew, F.R.S., Design in nature. 3 vols.
Mrs. Phillips, Senr.—Ch. D. F. Phillips, Collected papers on pharmacology and therapeutics.
Mr. George F. Planinsky, Croydon.—Draganof, Macedonia and the reforms.
Sir R. Douglas Powell, Bart., M.D.—Presidential address to the Royal College of Physicians.
The Proprietors of the Colliery Guardian.—Digest of evidence given before the Royal Commission on Coal Supplies. 1901-5. 3 vols.
The Proprietors of the National Review.—Wilson, Defenceless Scotland.
Professor G. Lansing Raymond, New York.—The Aztec God.—Ballads and other poems.—A life in song.—The psychology of inspiration.
Sir Harry R. Reichel, LL.D.—Otto Salomon: a personal appreciation.
Royal Hungarian Ministry of Public Instruction.—The buildings of the Royal Hungarian Universities. 3 vols.
Mr. Edward S. Russell, M.A.—The evidence for natural selection.—The transmission of acquired character.
Professor Sauvageau, Bordeaux.—Le Professeur David Carazzi.
Sir James Sawyer, M.D.—Points of practice in maladies of the heart.
Mr. James C. Smith, London.—Inter-temporary values.—Abundance and hard times.—The trust and the gold trust.
Mr. Sulakhan Singh Sohl.—26 volumes in Persian and Urdu.
Dr. S. Solis-Cohen, Philadelphia.—3 pamphlets on medical subjects.
Southport Corporation.—Southport; the official guide of the Corporation.
Dr. J. N. Stark.—An obstetric diary of William Hunter, 1762-1765; edited . . . by J. Nigel Stark.
Dr. W. M. Stenhouse, Dunedin.—Crichton, The Land o' the Leal; who wrote it?
Dr. Alfred W. Stewart.—9 volumes of general literature and 2 pamphlets.
Trustees of the E. J. W. Gibb Memorial.—E. J. W. Gibb Memorial. II., III. 3, and VI. 1.
The Vacuum Oil Co., Ltd.—Parish, The engineering value of lubricating oils.

Dr. Emil Westergaard.—On brewing.

Messrs. J. Whitaker & Sons.—The Holiday Whitaker (summer edition).

Principal A. M. Williams, M.A.—Alma Mater. Vols. XXIV. and XXV.—The Journal of Education. 1907, 1908.—Reports of the London County Council Education Committee. 1906, 1907.

Miss Elizabeth C. Winn, London.—J. M. Winn, Materialism.—Mind and living particles.—The fallacies of the materialistic theory of physiological psychology.

Baron Wisbech.—Heaton, Our own English Bible.

The Young Memorial Committee.—A catalogue of the manuscripts in the Library of the Hunterian Museum.

Various Reports and other Publications have been received from the following Government Departments: The Admiralty, The Board of Education, The Colonial Office, The India Office, The Patent Office, The Stationery Office, The War Office, The Scotch Education Department; Register House Department, Edinburgh; General Register Office, Ireland; also from British Columbia, Ministry of Mines; Canada, Department of Agriculture; Canada, Department of Marine and Fisheries; Canada, Department of the Interior; Egypt, Survey Department; The Official Information Department of the Manx Government; Budapest, Bureau Communal de Statistique; Buenos Ayres, Direction générale de la Statistique; Bureau of Standards, U.S.A.; Königlich ungarisch statistisches Bureau; Ministère du Travail et de la Prévoyance sociale, France; New South Wales Board of Health; New York Department of Health; New York State Education Department; República Oriental del Uruguay; Surgeon-General's Office, U.S.A.; Trinidad Botanical Department; United States Coast and Geodetic Survey; United States Department of Agriculture; United States Department of Education; United States Department of the Interior; West Indies, Department of Agriculture; the Geological Surveys of Canada, Ireland, Scotland, Tasmania, the United States, New Zealand.

Reports, Calendars, and other Publications have been received from the following Universities: Aberdeen, Athens, Basel, Belgrade, Birmingham, Bombay, Budapest, Buenos Ayres, Calcutta, California, Cambridge, Cape of Good Hope, Chicago, Chile, Columbia, Colorado, Coimbra, Cornell, Durham, Edinburgh, Groningen, Harvard, Havana, Heidelberg, Illinois, Iowa, Ireland, Jassy, Johns Hopkins, Kolosvar, La Plata, Leeds, Leyden, Leland Stanford Junior, Liverpool, London, Louvain, Lyons, McGill, Manchester, Manila, Melbourne, Michigan, Minnesota, Missouri, Montpellier, Nancy, Nebraska, New Zealand, New York, North Carolina, Oxford, Paris, Pennsylvania, Pisa, Princeton, Punjab, Roma, St. Andrews, St. Petersburg, Sheffield, Sofia, Sydney, Tokio, Toronto, Toulouse, Utrecht, Wales, Wien, Yale; also from Aachen Technische Hochschule, Académie de Neuchatel, Accademia polytechnica do Porto, Auckland University College; Belfast, Queen's College; Berlin, Handelshochschule; Bristol University College; Cardiff, University College of South Wales; Chicago, Western Theological Seminary; Constantinople, Robert College; Cork, Queen's College; Dundee University College; Durham College of Medicine; Edinburgh, Heriot-Watt College; Edinburgh, Royal College of Physicians; Edinburgh, School of Medicine; Exeter, Royal Albert Memorial College; Galway, Queen's College; Glasgow and West of Scotland Technical College; Glasgow School of Art; George Washington University; Halifax, Dalhousie College; Halifax, Presbyterian College; Hartford Theological Seminary; Heredia, Liceo; Kaiserliche Ingenieurshochschule, Moscow; Japan, College of Science; Kingston, Queen's College; Kingston School of Mining; Livingstone College; London, College of Preceptors; London, Guy's Hospital; London, King's College; London Pharmaceutical Society; London, Royal College of Surgeons; London, Royal Holloway College; London, Royal Institute of British Architects; London, South-Western Polytechnic Institute; London, Trinity College; London University College; Manchester School of Technology; Michigan Academy of Science; Michigan College of Mines; Newcastle-upon-Tyne, Armstrong College; New York, Academy of Medicine; New York, Union Theological Seminary; New Zealand, Canterbury College; North-Western University, U.S.A.; Nottingham University College; Paris, École pratique des hautes études; Reading University College; Reykjavik, Mentaskola; Stellenbosch, Victoria College; Sapporo Agricultural College, Japan;

Transvaal University College, United States Military Academy, University College of North Wales, Wigan Mining College; Winnipeg, Manitoba College; Winnipeg, Wesley College.

Publications of the following Societies and Institutions have been received: Aberdeen Public Library, Académie hongroise des Sciences, Accademia Pontaniana, Adyar Library, Allegheny Observatory, Alliance of Reformed Churches, American Osteopathic Association, American Philosophical Society, Anglo-Russian Literary Society, Arbroath Public Library, Asiatic Society of Bengal, Associazione elettrotecnica italiana, Australian Museum; Batavia, Magnetisch en Meteorologisch Observatorium; Belgique, Académie royale; Bethnal Green Free Library, Biblioteca Nazionale Centrale di Firenze, Bibliothèque royale de Belgique, Boston Public Library, British Institute of Social Science, British Museum, Brooklyn Institute of Arts and Sciences, Cambridge Philosophical Society, Canadian Institute, Canadian Society of Civil Engineers, Cape Observatory, Carnegie Foundation for the Advancement of Teaching, Carnegie Institution, Carnegie Trust; Ceylon, Royal Botanic Gardens; Chemical Society of London, Church of Scotland General Committee, Clydesdale Horse Society; Colombo Museum, Ceylon; Congress Library, U.S.A.; Co-operative Wholesale Society; Copenhagen, Det Kongelige Danske Videnskabernes Selskab; County Councils of Dumbarton, Fife, Lanark, Renfrew and Stirling; Cracovie, Académie des Sciences; Edinburgh Mathematical Society, Engineering Standards Committee, Glasgow Archaeological Society, Glasgow Corporation, Glasgow Medico-Chirurgical Society, Glasgow Obstetrical Society, Glasgow Pathological Society; Glasgow Philosophical Society, Govan Cottage Nurses Training Home, Homes for Inebriates Association, Hornsey Public Libraries, Hunterian Society of London, Incorporated Society of Musicians, Institute of Accountants and Actuaries, Institute of Bankers in Scotland, Institution of Civil Engineers, Institution of Electrical Engineers, Institution of Engineers and Shipbuilders, Institution of Marine Engineers, Institution of Mechanical Engineers, Institution of Naval Architects, International Polar Commission, International Congress of Architects; James Murray Royal Asylum, Perth; John Crerar Library, John Rylands Library, Johns Hopkins Hospital, Junior Institution of Engineers, Laws Observatory, Leeds Public Library, Library Association, Lick Observatory, Linnean Society of London, Livingstonia Mission, Lloyd's Register of British Shipping, London County Council, Malay States Institute for Medical Research, Manchester Literary and Philosophical Society, Manchester Municipal School of Technology, Manchester Steam Users' Association; Manila, Instituto Burgos; Massachussets General Hospital, Montrose Public Library, Mining Institute of Scotland; München, Deutsches Museum; Musical Association; Napoli, Accademia delle Scienze; National Electric Light Association, National Liberal Club, Natural History Society of Glasgow, Newberry Library, Newcastle-upon-Tyne Public Library; New College Library, Edinburgh; New York Public Library, New York State Hospital for Crippled Children, North London University College Hospital, Pathological Society; Perth, Sandeman Public Library; Philadelphia, Home for Deaf Children; Radcliffe Library, Oxford; Reale Accademia dei Lincei, Rome; Reale Instituto Lombardo, Research Defence Society, Rothschild'sche öffentliche Bibliothek, Royal Academy of Medicine in Ireland, Royal Army Medical Corps, Royal Astronomical Society, Royal Dublin Society, Royal Institute of Public Health, Royal Irish Academy; Royal Observatory, Greenwich; Royal Physical Society of Edinburgh, Royal Scottish Academy, Royal Society of Canada, Royal Society of Edinburgh, Royal Society of London, Royal Society of New South Wales, Royal Society of Victoria, St. Bartholomew's Hospital, St. Bride Foundation Institute; St. Pétersbourg, Académie des Sciences; Scottish Ecclesiological Society, Scottish Oceanographical Society, Scottish Society of Arts, Smithsonian Institution, Societa cientifica "Antonio Alzate," Société des Naturalistes de Moscow, Société des Sciences de Bucarest, Société française de Physique, Société hollandaise des Sciences, Société imperiale russe de Géographie, Société polonaise pour l'avancement des Sciences. Society of Antiquaries of Scotland, Society of Chemical Industry, South Wales Institute of Engineers, Stirling's and Glasgow Public Library, Tobago Botanic Stations, Vancouver Board of Trade, Victoria Public Library; Volta Bureau, Washington; Washington Philosophical Society, Wellcome Research Laboratories, West of Scotland Marine Biological Association, Yorkshire Geological Society, Yorkshire Philosophical Society.

From the Proprietors of the following Periodicals the current numbers of their respective publications. The Agricultural Economist, The American Journal of Mathematics, The Analyst, The Anti-Slavery Reporter, Archives bohêmes de medecine clinique, The Australasian Medical Gazette, Bolletino delle pubblicazioni italiane, The British Food Journal, The British Journal of Inebriety, The British Medical Journal, The British Messenger, The Caledonian Medical Journal, The Canadian Gazette, The Canadian Scotsman, The Colliery Guardian, Co-Partnership, The Electrical Review (New York), The Electron, Fancy Needlework, Folia Therapeutica, The Herald of the Cross, The Herald of the Golden Age, The Imperial Review, The Increase, The Liberty Review, The Light Railway and Tramway Journal, Linotype Notes and Printing Machinery Record, The Medical Press, The Mineralogical Magazine, The Model Engineer and Electrician, The New Church Magazine, The Optician, Pathologica, The Pharmaceutical Journal, The Positivist Review, The Post-Graduate, The Presbyterian Churchman, The Quarterly Register, Revue de Medecine Technique, Rassegna Latina, The Shipping World, Tuberculosis.

DIVINITY HALL LIBRARY.

This Library is set apart for the special use of students in Divinity. It contains an extensive collection of Theological works. It is supported chiefly by an annual grant from the University Court of Seven Shillings for each student attending the Divinity classes.

The Librarian is elected annually by the students attending the Hall.

HUNTERIAN MUSEUM.

This Museum was founded by the eminent William Hunter, M.D., who was born in 1718, at Cantieswell or at Long Calderwood, in the Parish of East Kilbride, Lanarkshire. (See *William Hunter: Physician, Anatomist, Founder of the Hunterian Museum*, by Professor John Young, M.D.) By his will, dated 1783, he bequeathed to the Principal and Professors of the College, and their successors in office, his valuable collection of books, manuscripts, coins, paintings, anatomical preparations, zoological and mineral specimens, and archaeological relics, and also a sum of £8,000, the greater part of which was spent on the erection of a building for their reception and preservation.

This building, erected in 1804, became the property of the Union Railway Company, as explained at page 32. But accommodation has been provided for the collections in the new buildings at Gilmorehill. The Museum occupies the north side of the eastern quadrangle, and consists mainly of two halls, the upper of which is galleried. With Dr. Hunter's collections there are incorporated the University collection of Roman inscriptions from the Antonine Vallum, and many important donations that have from time to time been received from friends of the University. Conspicuous among such additions are the Eck collection of minerals and precious stones, the minerals and antiquities presented by Miss Brown of Lanfine, and the contents of the Zoological and Ethnological Museum formerly attached to the Andersonian University.

The Museum contains:—(1) Medical Preparations, (2) Zoological Specimens, (3) Mineral Specimens, (4) Books, Manuscripts, Coins, Paintings, and Archaeological Objects.

The following catalogues of portions of the collections have been published:

1. *Stevenson Catalogue of Greek Coins.* 3 vols. By Geo. Macdonald, M.A. With 102 plates. Price £9 9s.
2. *Tituli Hunteriani: Catalogue of Roman Stones.* By James Macdonald, LL.D. Price 10s. 6d.
3. *Bellahouston Catalogue of Anatomical and Pathological Preparations.* By J. H. Teacher, M.B., C.M. 2 vols. 8vo. Price to students, 2s.
4. *Young Memorial Catalogue of the Manuscripts.* By John Young, M.D., and P. H. Aitken, D.Litt.

The late James Stevenson, Esq., of Hailie, defrayed the cost of the Catalogue of Greek Coins, and the Bellahouston Trustees that of the Anatomical Catalogue. The Catalogue of the Printed Books is completed in Manuscript. A complete Catalogue of the MSS. is being prepared for publication.

The whole Museum is under the immediate superintendence of the Museums Committee, consisting of two members of the University or others, not being members of Senate, appointed by the University Court, and of four members of Senate, appointed by the Senate. All reports by this Committee are, in the first instance, received by the Senate, and the Senate has power, subject to the review of the University Court, to confirm, modify, or reject the recommendations in such reports.

The Museum is open to the public, free of charge, every week-day from 10 A.M. to 4 P.M. in winter, 10 A.M. to 5 P.M. in summer.

Donations to University Collections.

The following donors have contributed to the collections during the past year:—

John F. Lang.—*Sponge.*

G. Smith.—*Anaspides tasmaniae.*

R. Dunlop.—*Tealliocaris loudonensis*, two specimens; *Palaemysis dunlopi*; *Anthrapalaemon russelianus*, five specimens.

M. M. Monie.—*Tealliocaris loudonensis.*

J. R. Wilson.—*Lithodes maia.*

Dr. J. H. Ashworth.—*Ornithodorus savignyi*; *A[illegible]*, adult and larvae.

E. Green.—*Pulchriphyllium* (protective resemblance series); *[illegible]*; *Phasmids* (5).

Dr. W. E. Agar.—*Pyrophorus* (?); *Ampullaria*; *Symbranchus marmoratus*; *Lepidosiren*, figured specimens; *Phyllomedusa sauvagii*, eggs; *Pseudis paradoxa*, larva.

Hans Koeppern.—*Carinaria*, *Pterotrachea*, etc.

Miss Muriel Robertson.—*Loligo*; *[illegible]*; *[illegible]*; *Platax vespertilio*; *Antennarius marmoratus*; *[illegible]*; *Ichthyophis glutinosus*, collection of *Ceylon Reptiles.*

A. Patience.—*Lingula.*

Dr. W. G. Ridewood.—*Cephalodiscus gilchristi.*

Dr. Albert Gray.—Series of vertebrate otocysts prepared by him.

Professor Graham Kerr.—*Gymnarchus*, life history; *Protopterus aethiopicus*; *Xenopus calcaratus*; *[illegible]*; *Chlamydophorus truncatus* from Bahia Blanca.

Messrs. Rowland Ward.—Arctic fox.

Sir John Ure Primrose, Bart.—Collection of fossils from the Portland limestones of Portland.

Lieut.-Col. and Mrs. Charles F. Call.—Autograph of Shelley's poem, "Lines."

John Young, B.Sc.—MS. entitled "On the geology of the shores of the Firth of Clyde from Glasgow to Garroch Head," 1836.

J. W. Ballantyne, M.D.—*The Byrth of Mankynde, its author, editions, and contents.*

Dr. M. Melnik.—*Galerie Gustav Ritter Hoschek von Mühlheim in Prag. Beschreibendes Verzeichnis der alten Gemälde.*

Andrew A. Hunter, Cheltenham.—*The [illegible] Register*, Vol. I., No. 3, containing an article on the family of Hunter of Long Calderwood.

Dr. David Murray.—Cast of a vase of black steatite from Hagia Triada in Crete.

The Senate.—Commemoration medal of the ter-centenary of the death of Ulisse Aldrovandi, naturalist.

Professor Gregory.—Collection of eighteen specimens of ancient Greek pottery from the tombs in Cyrenaica, North-eastern Africa.

BOTANIC GARDEN.

A piece of ground adjoining the old College was for many years set apart as a Botanic Garden, for the use of the Lecturer on Botany; but the great increase of manufactories and other buildings in its vicinity having rendered it unfit for such a purpose, the University, in 1817, agreed to subscribe £2000 towards the formation of a new Botanic Garden then projected by the citizens of Glasgow, on condition that a Lecture-Room should be erected within it for the exclusive use of the Professor of Botany and his pupils—that every facility should be given them in prosecuting the study of Botany—and that three Directors of the Institution should be annually appointed by the Faculty of the College, to represent and protect the interests of the University. The Garden to which this agreement referred was completed and opened to the public in 1819. A Lecture-Room, in which the Professor of Botany delivered an annual course of Lectures during the summer months, was built; and the collection of plants, from the zeal and ability of the Superintendent, and the favourable situation of Glasgow, had become one of the richest and most valuable in the island. The extension of the town again compelled the removal of the Garden to its present site in Hillhead, at a greater distance from the old College, so that the Professor, while he continued to give in it the practical portions of the course (*Demonstrations*), found it more convenient to deliver his Lectures at the University. The removal of the University to Gilmorehill brought it nearer the Botanic Garden, but the Lecture-Room in the Garden being inadequate for the students attending the course of Elementary Lectures on Botany, and there being no Laboratory, Museum, or Herbarium-Room in the Garden, the Professor has continued to deliver his Lectures and to have his Laboratory at the University. Suitable buildings for the Botanical department have now been erected within the University grounds, and include Lecture Room, Museum, Herbarium, Laboratories, and other rooms.

MARINE BIOLOGICAL ASSOCIATION OF THE WEST OF SCOTLAND.

The station of the Association is situated near Keppel Pier, in the island of Cumbrae, and was opened in May, 1897. A constitution was adopted at a meeting of the Association held on 15th January, 1901. The chief object which the promoters have in view is to afford opportunities for the investigation of the Marine Fauna and Flora of the district known as the Clyde Sea Area, or of other parts of the West Coast of Scotland. A practical laboratory has been provided and equipped, and one of the tables in it, for which the University Court subscribes, is called the University

Table. The nomination of students to the privilege of working at this table is made by the Senate on the report of the Professors of Zoology and Botany. Applications should be addressed to the Clerk of Senate.

In 1898 the Committee of Management, in consideration of a donation of £500 to the building fund by Thomas Reid, M.D., LL.D., Waltonian Lecturer and Lecturer on the Eye in the University from 1871 till 1900, reserved a table, free of charge, for his use or for the use of any person to whom he might allow the same, and called it the Reid Table. Dr. Reid has intimated his desire that this table should be used by senior students of the University. Applications for the use of the Reid Table should also be addressed to the Clerk of Senate.

IX.—GRADUATION IN THE SEVERAL FACULTIES.

EXAMINERS.

Preliminary Examinations in Arts, Science, and Medicine.

The University Court of each University annually appoints as Examiners such number of Professors or Lecturers in the Faculty of Arts in that University, and such additional Examiners as may be deemed necessary. The Preliminary Examinations in Arts, Science, and Medicine are conducted by these Examiners, under the control and supervision of a Joint-Board appointed in January of each year by the several University Courts from among the Examiners, according to a scheme of rotation prescribed in Ordinance No. 13, Section IV., as supplemented by Ordinance No. 43, Section I.

The Joint-Board holds office from the first day of February to the thirty-first day of January in the succeeding year, and sits at each University in rotation in the following order:—Edinburgh (1909-10), Glasgow (1910-11), Aberdeen (1911-12), St. Andrews (1912-13). It consists of eight Professors or Lecturers and eight additional Examiners, two Professors or Lecturers and two additional Examiners being appointed by the University Court of each University, according to the scheme printed on p. 210. In the case of a candidate at a Preliminary Examination who is permitted to offer himself for examination in any language not included in the Preliminary Examination, each University makes special arrangements for the examination of its own candidates.

UNIVERSITY.	1893 and every Fourth Year thereafter (1909).	1894, and every Fourth Year thereafter (1910).	1895, and every Fourth Year thereafter (1911).	1896, and every Fourth Year thereafter (1912).
ST. ANDREWS, .	English (Professor).	English (Professor).	English (Additional Examiner).	English (Additional Examiner).
	Classics (Additional Examiner).	Classics (Professor).	Classics (Professor).	Classics (Additional Examiner).
	Mathematics and Dynamics (Additional Examiner).	Mathematics and Dynamics (Additional Examiner).	Mathematics and Dynamics (Professor).	Mathematics and Dynamics (Professor).
	Modern Languages (Professor or Lecturer).	Modern Languages (Additional Examiner).	Modern Languages (Additional Examiner).	Modern Languages (Professor or Lecturer).
GLASGOW, . . .	English (Additional Examiner).	English (Professor).	English (Professor).	English (Additional Examiner).
	Classics (Additional Examiner).	Classics (Additional Examiner).	Classics (Professor).	Classics (Professor).
	Mathematics and Dynamics (Professor).	Mathematics and Dynamics (Additional Examiner).	Mathematics and Dynamics (Additional Examiner).	Mathematics and Dynamics (Professor).
	Modern Languages (Professor or Lecturer).	Modern Languages (Professor or Lecturer).	Modern Languages (Additional Examiner).	Modern Languages (Additional Examiner).
ABERDEEN, . .	English (Additional Examiner).	English (Additional Examiner).	English (Professor).	English (Professor).
	Classics (Professor).	Classics (Additional Examiner).	Classics (Additional Examiner).	Classics (Professor).
	Mathematics and Dynamics (Professor).	Mathematics and Dynamics (Professor).	Mathematics and Dynamics (Additional Examiner).	Mathematics and Dynamics (Additional Examiner).
	Modern Languages (Additional Examiner).	Modern Languages (Professor or Lecturer).	Modern Languages (Professor or Lecturer).	Modern Languages (Additional Examiner).
EDINBURGH, . .	English (Professor).	English (Additional Examiner).	English (Additional Examiner).	English (Professor).
	Classics (Professor).	Classics (Professor).	Classics (Additional Examiner).	Classics (Additional Examiner).
	Mathematics and Dynamics (Additional Examiner).	Mathematics and Dynamics (Professor).	Mathematics and Dynamics (Professor).	Mathematics and Dynamics (Additional Examiner).
	Modern Languages (Additional Examiner).	Modern Languages (Additional Examiner).	Modern Languages (Professor or Lecturer).	Modern Languages (Professor or Lecturer).

Degrees in Arts.

The Examiners for Degrees in Arts are the Professors whose subjects qualify for Graduation in Arts, together with such Lecturers in the University and such additional Examiners appointed by the University Court as the University Court may deem necessary.

Degrees in Science.

The Examiners for Degrees in Science are the Professors whose subjects qualify for Graduation in Science, together with such Lecturers in the University and such additional Examiners appointed by the University Court as the University Court may deem necessary.

Degrees in Medicine

The Examiners for Graduation in Medicine are the Professors whose subjects qualify for Graduation in Medicine, together with such Lecturers in the University and such additional Examiners appointed by the University Court as the University Court may deem necessary, such provision being made as will ensure that every candidate shall be examined in each subject by at least two Examiners, one of whom shall not be a Professor or Lecturer in the University.

No person is eligible for appointment to the office of additional Examiner, whether for Preliminary Examination or for Degrees in Arts, Science, or Medicine, who is a Professor, Lecturer, or University Assistant or Demonstrator in any Scottish University, and the appointment of any additional Examiner during the currency of his term of office to a Professorship, Lectureship, or to the office of University Assistant or Demonstrator in any Scottish University is held to vacate his office of Examiner. The periods of appointment of additional Examiners are so adjusted as to secure that all the Examiners shall not vacate their office at the same time ; but no Examiner can be appointed for a longer period than four years, and no person who has held the office of Examiner for a period of three or four years is eligible for reappointment to the office of Examiner in the same University until he has ceased to hold the office of Examiner in such University for not less than one year.

In the event of a vacancy in the office of a member of the Joint-Board, or of an Examiner or additional Examiner in Arts, Science, or Medicine, occurring otherwise than by expiration of his term of office, the person appointed in his room is appointed for the remainder of such term only.

Degrees in Law.

The Examiners for the Degree of Bachelor of Laws are the Professors of or Lecturers on the subjects included in the examinations for the said degree, and additional Examiners appointed by the University Court.

The Examiners for the Degree of Bachelor of Law are the Professors of or Lecturers on the subjects included in the examinations for the said degree, and additional examiners appointed by the University Court.

Degrees in Divinity.

The Examiners for the Degree of Bachelor of Divinity are the Professors of or Lecturers on the subjects included in the examinations, and two additional Examiners appointed by the University Court.

REGULATIONS FOR GRANTING DEGREES.

1. GRADUATION IN ARTS.

The conditions on which the Degree of Master of Arts is conerred are regulated by the University Court Ordinance No. XXIII. (Glasgow No. 6), the principal provisions of which are the following:—

Academical Year.

I. The academical year shall commence on the first day of October. In each academical year there shall be one session, which shall include not less than twenty-five teaching weeks. The session shall commence within the first seven days of October, and shall be divided into three terms. The days on which classes shall open and close in each term shall be determined by the Senatus, with the approval of the University Court. For the purpose of reckoning the duration of study in any subject, the Senatus, with the approval of the University Court, shall have power to determine that attendance during one session shall be constituted by attendance during at least two terms of the session.

II. The Curriculum for the Degree of Master of Arts (M.A.) shall extend over not less than three sessions.

PRELIMINARY EXAMINATION.[1]

III. (1) Before entering on the Curriculum (subject to the proviso contained in Section IV., Sub-section 1) each student shall pass a Preliminary Examination in the following subjects:—

1. English.
2. Latin or Greek.
3. Mathematics.
4. One of the following:—Latin or Greek (if not already taken), French, German, Italian (or such other language[2] as the Senatus Academicus may approve), Dynamics.

Under this sub-section the Senate has approved of (1) Japanese, (2) Spanish, (3) Danish, (4) any of the Celtic languages. Any candidate who proposes to be examined in Japanese or Spanish or in any other language than the six mentioned in the Ordinance is required to make intimation to the Senate before 1st Feb. or 1st July for the Spring and Autumn Examinations respectively.

---

[1] Supplementary Regulations issued by the Joint Board on 31st January, 1909, have been inserted in smaller type at the points in the ordinances to which they relate.

[2] The Joint Board has directed that all examinations in languages approved by the Senatus under this sub-section shall consist of two papers, each of two hours' duration, and shall be drawn up, so far as possible, in accordance with the regulations given on page 214 as regards Latin and Greek.

(2) The examination must be passed in the matters and on the standards hereinafter defined; but there shall be a higher and a lower standard in Latin and in Greek, and a higher, an intermediate, and a lower standard in Mathematics.

Candidates must pass on the higher standard in at least one of these three subjects, and may pass on the lower standard in either or both of the remaining two; subject always to the conditions relative to attendance contained in Section IV. of this Ordinance.

(3) English shall comprise Grammar and Composition, and the outlines of Geography and British History, and the standard shall not be lower than that adopted at the date of the approval of this Ordinance for a pass on the Higher Grade standard at the Leaving Certificate Examination of the Scotch Education Department.

In the case of a student, whose native language is other than English, the standard required in English in the Preliminary Examination shall be such as the Joint Board of Examiners may deem sufficient.

The Joint-Board has issued the following directions showing the character of the papers to be set in English:—

English will include (*a*) Grammar, (*b*) Composition, (*c*) Literature, (*d*) History, and (*e*) Geography.

(*a*) Grammar will include Analysis, Parsing, Derivation, and Correction of Sentences.

(*b*) Composition will include an Essay and Paraphrasing. In place of a paraphrase proper, the interpretation or discussion of one or more passages in prose or verse may be required.

(*c*) Literature will comprise a knowledge of certain prescribed books of two or three writers. Questions requiring a general knowledge of the life and works of the greater writers will not be set; but one or two questions may be set, giving an opportunity to candidates who have read widely in English Literature to show their knowledge. The prescribed books will be:—For 1909, Shakespeare, *Richard II*; Byron, *Childe Harold*, III and IV; Addison, *The Spectator* (first fifty Essays). For 1910, Shakespeare, *Twelfth Night*; Milton, *Comus*; Scott, *The Fortunes of Nigel*.

The first paper in English will consist of—1, Essay; 2, a question in the paraphrasing or the interpretation or the discussion of a passage or some passages in prose or verse; 3, 4, 5, 6, Questions in Grammar as explained above.

(*d*) History. There will be no prescribed period, but the paper will contain general questions on the history of Britain from B.C. 55.

(*e*) Geography will include a general knowledge of the Geography of the World, and a special knowledge of the Geography of the British Empire.

(4) Latin and Greek shall comprise grammatical questions, translation into English from Latin or Greek authors not previously prescribed, and translation of plain passages or easy sentences from English into Latin or Greek. The higher standard shall not be lower than that adopted at the date of the approval of this Ordinance for a pass on the Higher Grade standard at the Leaving Certificate Examination of the Scotch Education Department, and the lower standard shall not be lower than that adopted at the said date for a pass on the Lower Grade standard at the Leaving Certificate Examination of the said Department.

In the case of a student whose native language is other than European, the Senatus may accept, as an alternative to Latin or Greek, any other classical language, for example, Sanskrit or Arabic, provided always that the standard of the examination therein shall be as nearly as possible equivalent to the higher standard in Latin or Greek.

The Senatus of each University shall direct the Examiners in any classical language accepted as an alternative for Latin and Greek, that the arrangement of the papers set and the allocation of marks to the different questions must be the same as that required for the papers in Latin and Greek. The examination, if upon the higher standard, shall consist of two papers of two hours each.

The Latin examination on the higher standard will include Translation, Prose Composition, Grammar, and Sentences.

The Greek examination on the higher standard will include Translation, Sentences (or an easy passage of continuous English Prose, set either as an alternative or as a substitute), and Grammar.

The passages for translation both from Greek and Latin will include Prose and Verse.

The Latin examination on the lower standard will include Translation and Parsing, Prose Composition, Grammar, and Sentences.

The Greek examination on the lower standard will include Translation, Sentences, and Grammar.

In the Latin and the Greek papers both on the higher and lower standards, candidates are required to satisfy the Examiners both in Composition and in Translation.

Candidates who, having taken in Latin or Greek the examination on the higher standard, have failed to pass on that standard, but have obtained a percentage of marks equivalent to a pass on the lower standard, may be held by the Board to have passed the examination on the lower standard. But those to whom it is important to obtain a lower pass in the event of failure for the higher, are advised to take the lower paper.

(5) French, German, and Italian shall comprise grammatical, literary, and easy philological questions, translation into English from French, German, or Italian authors not previously prescribed, and translation from English into French, German, or Italian; and the standard shall not be lower than that adopted at the date of the approval of this Ordinance for a pass on the Higher Grade standard at the Leaving Certificate Examination of the Scotch Education Department.

Two papers will be set in French and two in German, two hours being allowed for each; the first paper to contain a passage for translation from English into French or German, and a test in free composition on some easy subject; the second paper to contain two unseen translations into English (one in prose, one in verse), three grammatical, one philological, and one literary question. Of these five questions the candidates will be allowed to choose three.

Literature will comprise a general knowledge of the life and works of at least one of four standard writers (for French literature, two at least from the 19th century, and one at least from the 17th century), with special reference to one particular work by each of them. Two of the authors will be changed from year to year.

The authors prescribed for literary questions (in 1909) will be as follows:—

FRENCH.—Sandeau, *Mlle. de la Seiglière* (the play); Daudet, *Lettres de mon moulin*; Molière, *L'Avare*; Mèrimée, *Colomba.*

GERMAN.—Freytag. *Die Journalisten*; Wildenbruch, *Das edle Blut*; Buchheim, *Deutsche Balladen*; Schiller, *Maria Stuart.*

And in 1910:—

FRENCH.—Molière, *L'Avare*; Mèrimée, *Colomba*: George Sand, *La petite Fadette*; Beaumarchais, *Barbier de Séville.*

GERMAN.—Buchheim, *Deutsche Balladen*; Schiller, *Maria Stuart*; Seidel, *Leberecht Hühnchen*; Keller, *Fähnlein der sieben Aufrechten.*

(6) Mathematics on the lower standard shall comprise—(*a*) Arithmetic, including Vulgar and Decimal Fractions, Proportion, Percentage, Square Root, Simple Interest; (*b*) Algebra, including Fractions, Factors, Square Root, Equations of the First Degree, Simultaneous Equations of the

First Degree, Easy Quadratic Equations, Problems leading to the above Equations; (*c*) Geometry: Euclid, Books I., II., and III. (or their equivalents), with easy deductions. Demonstrations other than Euclid's will be accepted if they assume no propositions which in Euclid's order are subsequent to the proposition under consideration.

(7) Mathematics on the intermediate standard shall in addition to the subjects comprised in the lower standard, comprise—(*a*) Euclid: Book VI., Propositions 1–19, or Geometry equivalent thereto. (*b*) Algebra: Quadratic Equations, Ratio and Proportion. (*c*) The Trigonometry of Right-angled Triangles.

No candidate can pass on the intermediate standard who either does not, at the same time, pass on the lower standard or has not previously passed on the lower standard.

(8) Mathematics on the higher standard shall, in addition to the subjects comprised in the lower standard, comprise Euclid, Books IV., VI., and the first twenty-one propositions of Book XI. (or their equivalents), with Deductions, Quadratic Equations, Trigonometry to the Solution of Triangles inclusive, and the use of Logarithmic Tables.

In the examination in Mathematics on the higher and intermediate and on the lower standards each question in Geometry will consist of two parts, of which one will be an easy deduction or illustrative exercise on the proposition set as bookwork.

There will be two papers in Mathematics on the higher and on the intermediate standard. The first paper will consist of questions on Geometry, and on Trigonometry, in the proportion of four-fifths Geometry and one-fifth Trigonometry. The second paper will consist of questions on Algebra (including Arithmetic), and on Trigonometry, in the proportion of four-fifths Algebra and one-fifth Trigonometry, and shall contain two or more questions on Arithmetic, of which one at least shall be taken by all candidates.

Candidates for the higher standard may obtain full marks by doing correctly about two-thirds of the questions set in each subject; but the Examiners will be entitled to reject a candidate who makes in any subject less than a certain minimum of the marks allotted to that subject.

The pass-mark for candidates on the intermediate standard is fixed with reference to the total number of marks assigned to questions which fall under the syllabus of the intermediate standard; but such candidates will receive credit for any question they may answer.

The paper in Mathematics on the lower standard will be devoted to the various subjects comprised in as nearly as possible the following proportions: four-ninths to Geometry, three-ninths to Algebra, and two-ninths to Arithmetic.

Candidates may obtain full marks by doing correctly about two-thirds of the questions set in each subject; but the Examiners will be entitled to reject a candidate who makes in any subject less than a certain minimum of the marks allotted to that subject.

(9) Dynamics shall mean the Elementary Statics and Kinetics of Solids, Liquids, and Gases.

The paper on Dynamics will be directed to test the candidate's knowledge of the fundamental principles of the subjects included in it as defined above. Questions may be set which involve the Trigonometry of right-angled triangles.

Candidates may obtain full marks by doing correctly about two-thirds of the questions set in each section of the paper.

(10) A candidate shall be obliged to pass in all the required subjects at one or not more than two examinations; provided that he may offer himself for re-examination as often as may be necessary to satisfy this condition.

IV. (1) Attendance on any course shall not qualify for graduation, unless the whole Preliminary Examination has been previously passed. But any student who has passed in Latin, Greek, or Mathematics on the higher standard may attend a qualifying course in such subject or subjects without having passed in the other subjects of the Preliminary Examination, provided always that (*a*) no candidate shall be allowed to present himself for a Degree Examination in any subject until he has passed the whole Preliminary Examination; and (*b*) no student shall be admitted to a degree in Arts unless he has attended qualifying courses in this University, or partly in this University and partly in another Scottish University (or other University specially recognised by the University Court, after consultation with the Senatus, as provided by Section XXIII. hereof), for three sessions after he has completed his Preliminary Examination.

(2) Attendance on a course in any language included in the Preliminary Examination shall not qualify for graduation, unless the candidate has previously passed the Preliminary Examination in that subject, and on the higher standard where more than one standard is provided. He may, for that purpose, attend any Preliminary Examination held during the course of his study, taking only the paper set in that subject; provided always that the provisions of sub-section (1) immediately preceding shall have been satisfied.

(3) Attendance on a course in any language not included in the Preliminary Examination shall not qualify for graduation, unless the candidate has previously passed an examination in that language on a standard as nearly as possible equivalent to the higher standard of the languages included in the Preliminary Examination.

(4) Attendance on a course of Mathematics or Natural Philosophy shall not qualify for graduation unless the candidate has previously passed in Mathematics on the higher standard or on the intermediate standard.

(5) If a student, before passing the Preliminary Examination, has attended a course qualifying for graduation, the Senatus may, on special cause shown, permit him to count such course as qualifying for graduation, on condition of his passing the full Preliminary Examination within such time thereafter as the Senatus may appoint; and in every such case the Senatus shall make a report to the University Court setting forth the reasons for the relaxation.

V. (1) The Preliminary Examination shall be held not oftener than twice in each year,[1] under such regulations as the Senatus, with the approval of the University Court, shall from time to time determine, and shall be conducted in writing; but the regulations may prescribe that with respect to any of the subjects the written examination shall be supplemented by an oral or a practical examination.

(2) The Joint-Board of Examiners appointed under the provisions of Ordinance No. 13, General No. 8 (Regulations as to Examinations) shall have power to accept a Pass on the Higher Grade standard at the Leaving Certificate Examination of the Scotch Education Department in any subject as an equivalent for the Preliminary Examination in that

---

[1] For dates of Preliminary Examinations see Table on page 217.

Fee.	Names to be given in and Fees paid to Assistant-Clerk[1] (Matriculation Office). Date.	Subject.	Dates of Examinations and Hours at which the various Papers will be set.	
10s. 6d. 10s. 6d.	24th August or 2nd March.	English (1st Paper),	Friday, 10th September, 9 to 11 a.m.	Thursday, 24th March, 9 to 11 a.m.
		Higher Latin (1st Paper), - -	Friday, 10th September, 12 noon to 2 p.m.	Thursday, 24th March, 12 noon to 2 p.m.
		Lower Latin, -	Friday, 10th September, 3 to 6 p.m.	Thursday, 24th March, 3 to 6 p.m.
		English (2nd Paper).	Saturday, 11th September, 9 to 11 a.m.	Saturday, 26th March, 9 to 11 a.m.
		Intermediate and Higher Math. (1st Paper), - -	Saturday, 11th September, 12 noon to 2 p.m.	Saturday, 26th March, 12 noon to 2 p.m.
		Lower Greek, -	Saturday, 11th September, 3 to 6 p.m.	Saturday, 26th March, 3 to 6 p.m.
		Higher Latin (2nd Paper), - -	Monday, 13th September, 9 to 11 a.m.	Monday, 28th March, 9 to 11 a.m.
		Intermediate and Higher Math. (2nd Paper), - -	Monday, 13th September, 12 noon to 2 p.m.	Monday, 28th March, 12 noon to 2 p.m.
		Lower Mathematics	Monday, 13th September, 3 to 6 p.m.	Monday, 28th March, 3 to 6 p.m.
		Higher Greek (1st Paper), - -	Tuesday, 14th September, 9 to 11 a.m.	Tuesday, 29th March, 9 to 11 a.m.
		French (1st Paper),	Tuesday, 14th September, 12 noon to 2 p.m.	Tuesday, 29th March, 12 noon to 2 p.m.
		Dynamics, - -	Tuesday, 14th September, 3 to 6 p.m.	Tuesday, 29th March, 3 to 6 p.m.
		Higher Greek (2nd Paper), - -	Wednesday, 15th September, 9 to 11 a.m.	Wednesday, 30th March, 9 to 11 a.m.
		French (2nd Paper),	Wednesday, 15th Sept., 12 noon to 2 p.m.	Wednesday, 30th March, 12 noon to 2 p.m.
		German (1st Paper),	Wednesday, 15th September, 3 to 5 p.m.	Wednesday, 30th March, 3 to 5 p.m.
		German (2nd Paper),	Thursday, 16th September, 9 to 11 a.m.	Thursday, 31st March, 9 to 11 a.m.
		Italian (1st Paper),	Thursday, 16th September, 12 noon to 2 p.m.	Thursday, 31st March, 12 noon to 2 p.m.
		Italian (2nd Paper),	Thursday, 16th September, 3 to 5 p.m.	Thursday, 31st March, 3 to 5 p.m.
		Celtic,	Friday, 17th Sept., 9 to 11 a.m. & 12 to 2 p.m.	Friday, 1st April, 9 to 11 a.m. & 12 to 2 p.m.

II. MEDICINE.

10s. 6d. 10s. 6d.	24th August or 2nd March.	English, - -	Friday, 10th September, 9 a.m. to 12 noon.	Thursday, 24th March, 9 a.m. to 12 noon.
		Latin, - - -	Friday, 10th September, 3 to 6 p.m.	Thursday, 24th March, 3 to 6 p.m.
		Greek, - - -	Saturday, 11th September, 3 to 6 p.m.	Saturday, 26th March, 3 to 6 p.m.
		Mathematics, -	Monday, 13th September, 3 to 6 p.m.	Monday, 28th March, 3 to 6 p.m.
		French, - -	Tuesday, 14th September, 12 noon to 3 p.m.	Tuesday, 29th March, 12 noon to 3 p.m.
		German, - -	Wednesday, 15th September, 3 to 6 p.m.	Wednesday, 30th March, 3 to 6 p.m.

---

[1] For Women Students, Miss Melville, Queen Margaret College.

subject; to accept a pass in Science at the Leaving Certificate Examination of the said Department as an equivalent for the Preliminary Examination in the subject of Dynamics; and to accept a pass on the Lower Grade standard at the Leaving Certificate Examination of the said Department as an equivalent for the Preliminary Examination on the lower standard in Latin, Greek, and Mathematics; provided they are satisfied that the standard of the examination, at which the said certificates were granted, is not lower than that required by this ordinance.

Under this sub-section the Joint Board of Examiners has resolved as follows:—For the Preliminary Examination in Arts and Science, Passes in the Higher and Honours Grade of the Leaving Certificate Examinations of the Scotch Education Department in Latin, Greek, and Mathematics will be accepted as equivalent to the higher standard in each of these subjects, as prescribed by the Arts Ordinance, and Passes in the Lower Grade or Intermediate Certificate Examinations to the lower standard;[1] Passes in the Higher and Honours Grade in English, in Modern Languages, and in Dynamics, will be accepted as equivalent to the standard prescribed for each of these subjects by the Arts Ordinance; a Pass in the Leaving Certificate in Science will be accepted as equivalent to the examination in the subject of Dynamics. The Regulation that all the subjects of the examination shall be passed at one or not more than two examinations shall not be held to apply to the Leaving Certificate Examinations.

(3) The Joint-Board of Examiners shall have power to determine what examinations, if any, other than the Leaving Certificate Examinations of the Scotch Education Department, may be accepted as equivalent to the Preliminary Examination in whole or in part, provided they are satisfied that such other examinations are in fact equivalent thereto.[2]

Under this sub-section the Joint-Board have agreed to accept the following Examinations as exempting from the Preliminary Examination in Arts and Science, either wholly or in part:—

(*a*) A Degree in Arts or in Science, not being an Honorary Degree, in any of the Universities of the United Kingdom, shall exempt from the Preliminary Examination in Arts or in Science, as the case may be.

(*b*) A Certificate of having passed in the Honours or First Division in English in the London University Matriculation Examination will be accepted as equivalent to English in the Arts and Science Preliminary Examination; and the Joint-Board also accepts, for the Preliminary Arts and Science Examination, (1) London University Matriculation Mathematics, as equivalent to Lower Mathematics; (2) London University Matriculation Mechanics as equivalent to Dynamics; and (3) London University Intermediate Mathematics as equivalent to Intermediate and Higher Mathematics.

---

[1] Passes in individual subjects in the Intermediate Examination are accepted only where the Scotch Education Department have notified to the Clerk of Senatus or Joint Board that a sufficient standard had been reached in such subjects.

[2] Applications for exemption on the ground of having passed examinations not included in the following list should be addressed to the Convener of the Board. As several Universities have to be consulted, a decision on a new case cannot be guaranteed in less time than from two to three weeks.

(*c*) Oxford and Cambridge Schools Examination Board. Exemption will be granted as follows:—

A Pass in *Latin or Greek* for the Lower Certificate or the 'Leaving Certificate' will be accepted for Lower Latin or Lower Greek.

A Pass in *Latin or Greek* for the Higher Certificate will be accepted for Higher Latin or Higher Greek.

A Pass in *French or German* for the Higher Certificate will be accepted for the Arts and Science Pass in these subjects respectively.

In *Mathematics*,

Elementary Mathematics of the 'Leaving Certificate.'	Will be accepted for Lower Mathematics.
Elementary Mathematics of the Higher Certificate.	
Additional Mathematics for the 'Leaving Certificate,' if endorsed with Trigonometry.	Will be accepted for Higher Mathematics.
Additional Mathematics for the Higher Certificate.	

Of these two, the former if not endorsed with Trigonometry will be accepted for Lower Mathematics only.

Natural Philosophy (Mechanical Division) will be accepted for Dynamics.

In *English*,

The Higher Certificate with English.	Will be accepted for the Arts and Science Pass in English.
The Higher Certificate with Essay and History *or* Geography.	
The 'Leaving Certificate,' with English History and Geography (the combined subject).	

(*d*) Oxford University Local Examinations:—

(i.) Junior Local Examination:—Distinction in Mathematics (if the Candidate has passed both in Algebra and Geometry), with a Pass in Arithmetic, will exempt from Lower Mathematics.

A Pass in Higher Mathematics, if it includes Algebra and Geometry with a Pass in Arithmetic, will exempt from Lower Mathematics.

(ii.) Senior Local Examination:—A Pass in Latin will exempt from Lower Latin; a Pass in Greek will exempt from Lower Greek; Distinction in Latin will exempt from Higher Latin; Distinction in Greek will exempt from Higher Greek; Distinction in French or German will exempt from French or German respectively; a Pass in Mathematics, including Algebra and Geometry, with Arithmetic, will exempt from Lower Mathematics; a Pass in Higher Mathematics, including Algebra, Geometry, and Trigonometry, will exempt from Higher Mathematics; a Pass in English Language and Literature, History, and Geography (with Distinction in the first of the three) will exempt from English.

(iii.) Higher Local Examination:—This will be accepted *pro tanto*.

(*e*) Cambridge University Local Examinations:—

(i.) Junior Local Examination:—Distinction in Mathematics will exempt from Lower Mathematics, provided it includes a Pass in both Algebra and Geometry.

(ii.) Senior Local Examination :—A Pass in Latin will exempt from Lower Latin ; a Pass in Greek will exempt from Lower Greek ; Distinction in Latin will exempt from Higher Latin ; Distinction in Greek will exempt from Higher Greek ; Distinction in French or German will exempt from French or German respectively ; a Pass in Algebra and Geometry will exempt from Lower Mathematics ; a Pass in Mathematics, including a Pass in Algebra, Geometry, and Trigonometry, will exempt from Higher Mathematics ; a Pass in English Language and Literature, History, and Geography (with Distinction in the first of the three) will exempt from English.

(iii.) Higher Local Examination :—This will be accepted *pro tanto.*

(*f*) British Colonies and Possessions :—

Candidates from British Colonies and Possessions who present evidence that they have passed examinations which would admit them to Universities or to Technical Colleges affiliated to a University, in their home country will be exempted, provided (1) that the evidence shows that they possess a knowledge of English sufficient to follow the Lectures with profit ; and (2) that before attending any class in English, any other Language, Mathematics or Natural Philosophy they shall produce evidence that they have fulfilled the conditions specified in Section IV. (2), (3), (4), of this Ordinance (p. 216).

(*g*) Continental Countries.—Abiturienten-Examen giving admission to German Universities, and corresponding Examinations in other Countries.

By *pro tanto* is here meant that a certificate of having passed in the Examination referred to, in any subject required for the Arts and Science Preliminary Examinations, shall, as regards that subject, exempt from further examination in the said Preliminary Examination, provided that all the required subjects shall be passed at one or not more than two examinations.

Ordinary Degree.

VI. The Curriculum for the Ordinary Degree of Master of Arts shall consist either of five or of six subjects, which shall be studied by attendance on qualifying courses therein.

When a Curriculum of five subjects is chosen, two of these subjects shall each be studied by attendance during two sessions on qualifying courses therein, and the Degree Examinations in these two subjects shall be on a higher standard than the Degree Examinations in the other three subjects.

When a Curriculum of six subjects is chosen, one of the subjects shall be studied by attendance during two sessions on qualifying courses therein, and the Degree Examination in that subject shall be on a higher standard than the Degree Examinations in the other five subjects ; and of these five subjects two shall be cognate subjects, and shall be studied by attendance in separate sessions on qualifying courses therein.

The Senate has directed that the names of the subjects which under this section can be studied by attendance during two sessions should be printed in CAPITALS in Section VIII.

The Senate has further directed that for the purposes of this section the following shall be deemed Cognate Subjects :—

Latin and Greek.
Latin and French.
Latin and Italian.
Latin and Celtic.
Latin and Roman Law.
French and Italian.
French and German.
Hebrew and Arabic.
Mathematics,
Natural Philosophy, } any two.
Chemistry,
Mathematics and Astronomy.
Botany,
Zoology, } any two.
Geology,
Logic,
Moral Philosophy, } any two.
Education,
Logic,
Moral Philosophy, } any two.
English,
Logic and Political Economy.
Moral Philosophy and Political Economy
History and English.
History and Constitutional Law and History
History and Political Economy.

No combination of subjects, other than the above mentioned, shall be recognised as cognate, unless the Senatus shall in the case of any particular candidate, and on special cause shown, have permitted the selection of a different combination; and in every such case the Senatus shall make a report to the University Court setting forth the reasons for such permission.

VII. (1) A qualifying course in each subject shall consist of not less than 75 meetings of the full class on separate days, with additional meetings for tutorial or other supplementary instruction; except in cases (*a*) where the Senatus, with the approval of the University Court, shall have sanctioned half courses of not less than 40 meetings of the full class on separate days, with additional meetings for tutorial or other supplementary instruction: or (*b*) where the Senatus, with the approval of the University Court, having regard to the nature of the subject, shall have sanctioned qualifying courses of less than 75 meetings of the full class, or half-courses of less than 40 meetings of the full class, respectively, with additional meetings for tutorial or other supplementary instruction.

(2) Two half-courses so sanctioned, either in one subject or in two cognate subjects, or a qualifying Honours Course as hereinafter defined, shall be held to be equivalent to a qualifying course in such cases as the Senatus, with the approval of the University Court, may

determine, and under such regulations as may from time to time be made for that purpose by the same authority.

(3) Where a subject is taught in a practical class, as well as in a systematic class, the Senatus, with the approval of the University Court, shall regulate the course of study and determine the relative proportion of lectures and laboratory or practical work.

VIII. The Departments of Study for graduation in Arts shall include the following subjects, with such additions thereto or modifications therein as may hereafter be made by the Senatus, with the approval of the University Court; provided always that no subject shall be included unless a qualifying course shall have been established therein :—

1. Language and Literature.

Latin.
Greek.
English.
French.
German.
Italian.
Hebrew.
Arabic.
Celtic.

2. Science.

Mathematics.
Natural Philosophy.
Astronomy.
Chemistry.
Zoology.
Botany.
Geology.
Geography.

3. Mental Philosophy.

Logic and Metaphysics.
Moral Philosophy.
Political Economy.
Education.

4. History and Law.

History.
Constitutional Law and History.
Roman Law.

N.B.—The New Arts Ordinance reproduced the list of Subjects contained in Ord. No. 11. The list given above is a modification made by the Senate in 1909.

IX. The Senatus, with the approval of the University Court, shall have power to make from time to time Regulations regarding the definition and grouping of the subjects in the several Departments of Study, their selection for the Curriculum, their classification as cognate, and the order in which they are to be studied, and also regarding the standards of the Degree Examinations and the conditions of admission thereto.

The Senate has made the following regulations in regard to Curricula and the Order of Study :—

Curriculum.

I. Every candidate for a Degree in Arts shall select one of the following curricula—

(1) One subject from each of the following pairs—

Latin or Greek.
Mathematics or Natural Philosophy.
Logic or Moral Philosophy.

Apart from these limitations the student may select his remaining subjects from those enumerated in Section VIII.

or (2) Both Mathematics and Natural Philosophy, together with one subject from each of the following groups—

Logic or Moral Philosophy.
French or German or Italian or Hebrew or Arabic or Celtic.

Apart from these limitations the student may select his remaining subject or subjects from those enumerated in Section VIII.

or (3) Any two of the following languages—Latin, Greek, French, German, Italian, Hebrew, Arabic, Celtic, together with one subject from each of the following groups—

Logic or Moral Philosophy.
Chemistry or Zoology or Botany or Geology.

Apart from these limitations the student may select his remaining subject or subjects from those enumerated in Section VIII.

II. Not more than three languages other than English, and not more than two double courses or three single courses in the department of Science are to be included in any Curriculum.

ORDER OF STUDY.

The following rules shall be observed—

1. Roman Law shall be preceded by at least one course in Latin.

2. Education shall be preceded by or taken concurrently with a course in either Logic or Moral Philosophy.

3. Astronomy shall be preceded by at least one course in Mathematics.

X. The University Court shall communicate to the General Council all additions and modifications relating to the Departments of Study, and all Regulations, made by the Senatus in pursuance of Sections VIII. or IX. hereof; and any representation made thereon by the General Council within two months from the date of such communication shall be taken into consideration by the University Court before any such addition, modification, or Regulation is pproved.

XI. Candidates who produce certificates that they have satisfied ll the conditions prescribed by this Ordinance, and who have passed he necessary Examinations and paid the required fees, shall be ntitled to receive the ordinary Degree of Master of Arts.

XII. For the ordinary Degree of Master of Arts the graduate shall eceive a Diploma, wherein shall be set forth the subjects in which e has passed.

DEGREE WITH HONOURS.

XIII. (1) The Degree of Master of Arts may be taken with onours in one or more recognised Groups of subjects.

(2) The recognised Groups of subjects for graduation in Arts with onours shall be the following, with such additions thereto or odifications therein as may hereafter be made by the Senatus, with he approval of the University Court; provided always that no

Group shall be recognised unless qualifying Honours courses, conducted by separate Professors or Lecturers, shall have been established in at least two of the subjects thereof :

(*a*) Classics [*i.e.* Latin and Greek with optional subjects such as Comparative Philology, Ancient Philosophy, Ancient History, and Classical Archaeology].

(*b*) Philosophy [*i.e.* Logic, Moral Philosophy, English Literature : any two of these].

(*c*) Mathematics and Natural Philosophy [*i.e.* Pure Mathematics, Natural Philosophy, Astronomy : any two of these].

(*d*) English [*i.e.* English Literature, with Language and History as subsidiary subjects].

(*e*) History [*i.e.* General European History and British History, Constitutional and Political].

(*f*) Economics [*i.e.* Political Economy, with *either* Logic, *or* Moral Philosophy, *or* History].

(*g*) French and German (Language and Literature).

(*h*) French, Italian, Latin (Language and Literature) : any two of these.

(*i*) Germanic Language [*i.e.* German Language and Literature, with English Language].

(*j*) Celtic Language and Literature [*i.e.* Ancient and Modern Celtic, with Latin].

(*k*) Semitic Language and Literature [*i.e.* Hebrew and Arabic].

N.B.—The new Arts Ordinance reproduced the list of Groups contained in Ord. No. 11. The list given above is a modification made by the Senate in 1909.

(3) The Senatus, with the approval of the University Court, shall have power to make from time to time Regulations regarding the definition and grouping of the subjects in the several recognised Groups, their selection for the Curriculum, their classification as cognate, and the order in which they are to be studied, and also regarding the standard of the Honours Examinations and the conditions of admission thereto; provided always that the following conditions are observed :

(*a*) That a candidate for Honours in one Group shall be required to attend four qualifying courses in the subjects of his Group (of which two shall be Honours courses conducted by separate Professors or Lecturers), and also to attend qualifying courses in two subjects other than those of his Group ;

(*b*) That a candidate for Honours in two Groups which include a subject common to both shall not be required to attend qualifying courses in more than one subject other than those of his Groups ;

(*c*) That a candidate for Honours in two Groups which include no subject common to both shall not be required to attend qualifying courses in any subject other than those of his Groups.

(4) The Degree Examinations in the subjects included in the candidate's Group or Groups shall be of the Honours standard, and in the other subjects or subject (if any) shall be of the standard required for the ordinary Degree.

Under this Section XIII. the Senate in 1909, besides modifying the Groups, made the following Regulations :

A. A candidate may present himself for the Honours Examination in any group at any time after he has attended the required courses of study in the subjects of his group, whether he has already graduated in Arts or not ; but he shall not present himself a second time for examination in the same group except with leave of the Senatus on special cause shown.

B. No combination of subjects, other than the above-mentioned groups, shall be recognised as an Honours Group, unless the Senatus shall in the case of any particular candidate, and on special cause shown, have permitted the selection of a different combination ; and in every such case the Senatus shall make a report to the University Court setting forth the reasons for such permission.

C. The subjects, other than those of his group, in which a candidate is required to attend qualifying courses, may be selected from any of the departments of study for graduation in Arts ; provided that a candidate for Honours in group (*e*) shall be required to select those subjects from a department or departments other than that of Science.

D. TEMPORARY PROVISION.

Any Graduate of the University who graduated before the first day of October, 1909, may, with the permission of the Senatus, be admitted to examination in one or more of the subjects of an Honours Group ; and should he attain therein the standard required of candidates for Honours, he shall be entitled to receive a Certificate of Proficiency in that subject or subjects, but his name shall not be placed in any Class.

XIV. (1) A qualifying Honours course in each subject shall consist of not less than 50 meetings of the full class, to be held on separate days during two or more terms.

(2) The Senatus, with the approval of the University Court, shall have power to sanction half courses for Honours in any subject. A half course shall consist of not less than 25 meetings of the full class, to be held on separate days during one or more terms ; and two half-courses so sanctioned, either in one subject or in two cognate subjects, shall be held to be equivalent to a qualifying Honours course in such cases as the Senatus, with the approval of the University Court, may determine, and under such regulations as may from time to time be made for that purpose by the same authority.

(3) Where a subject is taught in a practical class, as well as in a systematic class, the Senatus, with the approval of the University Court, shall regulate the course of study and determine the relative proportion of lectures and laboratory or practical work.

XV. The University Court shall communicate to the General Council all additions and modifications relating to the recognised groups of subjects for Honours, and all regulations, made by the Senatus in pursuance of Section XIII. subsections (2) and (3) hereof ;

and any representation made thereon by the General Council within two months of the date of such communication shall be taken into consideration by the University Court before any such addition, modification, or regulation is approved.

XVI. (1) In each Group there shall be three grades of Honours, to be denominated respectively the First, the Second, and the Third Class. The names of the candidates entitled to Honours in each class shall be arranged in alphabetical order.

(2) For the Degree of Master of Arts with Honours, the graduate shall receive a Diploma wherein shall be set forth the subjects in which he has passed with Honours, and those (if any) in which he has passed on the standard required for the ordinary Degree.

(3) A candidate for the Degree of Master of Arts with Honours who has failed to be placed in any Class shall, provided that in the opinion of the Examiners he has given evidence of sufficient attainments in any subject for the ordinary Degree of Master of Arts, receive from them a certificate that he has passed in such subject, which certificate shall entitle him to exemption *pro tanto* from the corresponding part of the Examination required for the ordinary Degree of Master of Arts.

BOARDS OF STUDIES.

XVII. The Senatus shall from time to time institute Boards of Studies corresponding in general to the several Departments of Study, or to any two or more of such Departments.

XVIII. Each Board of Studies shall consist of such Members of the Senatus and Lecturers in the University as the Senatus may from time to time select, and the Senatus shall appoint one of the Members of the Board to be Convener thereof.

XIX. Before the end of each session each Professor and Lecturer in each of the several Departments of Study shall submit to the proper Board of Studies for its approval a syllabus of the subjects and books proposed for the work of his classes and also a syllabus of the subjects and books to be prescribed for the Examinations for the ordinary Degree in the next academical year, and a syllabus of the subjects and books to be prescribed for the Examinations for the Honours Degree in the academical year next but one. As soon as such approval has been given, each syllabus shall be transmitted to the Faculty of Arts for its consideration. Each syllabus, with such observations as the Faculty of Arts may see fit to make thereon, shall then be transmitted to the Senatus for its sanction.

XX. Before the end of each session each Board of Studies shall prepare a scheme defining, for the academical year next but one following, the courses which shall be recognised as Honours courses, and the subjects and courses of reading for Honours in its Department or Departments, and shall report the same to the Faculty of Arts for its consideration. Each scheme, with such observations as the Faculty of Arts may see fit to make thereon, shall then be transmitted to the Senatus for its sanction.

XXI. The Principal and the Dean of the Faculty of Arts shall be *ex officio* Members of each Board of Studies. The Convener shall preside if present, and in his absence each meeting shall appoint its own Chairman; and the Convener or Chairman, as the case may be, shall have a deliberative and, in cases of equality, a casting vote.

GENERAL.

XXII. A candidate for the Degree of Master of Arts shall not be deemed to have attended a qualifying course as part of the Curriculum for that Degree who does not present a certificate bearing not only that he has regularly attended the class, but also that he has duly performed the work thereof.

XXIII. A student, who has given attendance at courses recognised as qualifying for graduation during one or more sessions in any one or more of the Scottish Universities, may complete his Curriculum by giving attendance during the remainder of his course in the University of Glasgow, and may proceed to a Degree in that University in the same way, in all respects, as if the previous part of his Curriculum had been taken therein: provided always that no such student shall be admitted to a Degree in the University of Glasgow unless he has given attendance on qualifying courses therein during the last session of his Curriculum. Further, the Senatus may accept, under such conditions as they may from time to time prescribe, attendance given and Examinations passed at other Universities specially recognised by the University Court, after consultation with the Senatus; provided always that every student, whose attendance or Examinations are thus accepted, shall attend qualifying courses for at least two sessions in the University of Glasgow, and shall pass the Degree Examinations of the University in the subjects so studied.

XXIV. The Degree of Master of Arts shall in no case be conferred on students who have not satisfied the conditions hereinbefore set forth, and shall not be conferred *honoris causâ tantum*.

But the Senatus shall have power to admit (*ad eundem gradum*) to the Degree of Master of Arts, and to all the privileges thereof, any person who has already received that degree from another University, provided that he is of distinguished merit or has been appointed to an academic office in the University of Glasgow.

XXV. Students may attend any classes without having passed the Preliminary Examination within the meaning of this Ordinance, but such attendance shall not qualify for graduation.

XXVI. From and after the date at which this Ordinance comes into operation Ordinances numbered 12, 14, 18 and 69 of the Commissioners under the Universities (Scotland) Act, 1858, as altered under the provisions of the said Act, and Ordinances numbered 11, 44, 148, 160, and 168, all of the Commissioners appointed under the Universities (Scotland) Act, 1889, and Ordinance General No. 1 of the University Courts of the Scottish Universities are hereby repealed as regards the University of Glasgow in so far as they are inconsistent with this Ordinance, and any references made in existing Ordinances applicable to the University of Glasgow to the said repealed Ordinances shall be deemed to refer to this Ordinance and the corresponding sections and subsections thereof ; provided always that a student who, at the date at which this Ordinance comes into operation, has already commenced his course of study with a view to graduation in Arts in the University of Glasgow under the regulations in force at the time in that University, may complete his course and become a candidate for the Degree of Master of Arts, with or without Honours, in conformity with such regulations.

XXVII. This Ordinance shall come into operation at the beginning of the academical year next following that in which it is approved by His Majesty in Council.

[Approved on 5th May, 1908.]

AS THE CANDIDATES HAVE STUDIED A SUBJECT FOR ONE OR TWO SESSIONS.

	SINGLE-COURSE STUDENTS.	DOUBLE-COURSE STUDENTS.
LATIN	**October, 1909.** 1. TERENCE, *Heautontimorumenos.* 2. CICERO, *Pro Caelio.* 3. CATULLUS (Clarendon Press Selections). 4. PLINY, *Letters*, Books I. 1, 3, 6, 9, 13—15, 20; II. 1, 11, 14, 17, 19; III. 1, 5—7, 13—16, 18, 20, 21; IV. 2, 7, 8, 13, 14, 19, 22, 24, 27, 28, 30; V. 3, 8, 10, 14, 16, 18, 19; VI. 2, 10, 11, 14—16, 20, 21, 33; VII. 3, 4, 6, 16, 20, 24, 27, 29, 33; VIII. 4, 6—8, 17, 23, 24; IX. 5, 7, 10, 13, 14, 19, 22, 23, 33, 36—39. 5. LIVY, Book XXVI. ROMAN ANTIQUITIES (Ramsay, Caps. II to VIII inclusive and Cap. XI). ROMAN HISTORY from B.C. 202 to A.D. 37 (How and Leigh's *History of Rome*). Unseen Translation. Prose Composition. *Note.*—Proficiency in Latin Prose Composition and in Grammar is indispensable. Such a knowledge of the matter of the books read is required as to enable a student to explain and comment on the text, and explain allusions. **May and October, 1910.** 1. TERENCE, *Phormio.* 2. CICERO, *Oratt. Verrinae*, Act II. lib. iv. (*de Signis*). 3. VIRGIL, *Georgic* I. 4. VARRO, *Rerum Rusticarum lib. iii.* 5. LIVY, Book VII. ROMAN ANTIQUITIES (Ramsay, Caps. II to VIII inclusive, and Cap. XI), ROMAN HISTORY from B.C. 202 to A.D. 37 (How and Leigh's *History of Rome*). Unseen Translation. Prose Composition. *Note.*—Proficiency in Latin Prose Composition and in Grammar is indispensable. Such a knowledge of the matter of the books read is required as to enable a student to explain and comment on the text and explain allusions.	**1910** and thereafter until further notice. Prose Composition. Unprepared Translation. General Paper in History, Antiquities, Literature, etc. Prescribed Books:—(Translation and Questions). 1. VIRGIL, *Eclogues and Georgics.* 2. HORACE, *Satires, Epistles*, and *Ars Poetica.* 3. PLAUTUS, *Captivi.* 4. CICERO, *Tusculan Disputations.* Named Authors:— TERENCE. CATULLUS *with* PROPERTIUS. CICERO, *Oratio* [illegible] *or* QUINTILIAN. Candidates will only be required to translate, not to explain, the passages from Named Authors. They will be expected to have sufficient general knowledge of these authors to be able to translate an average, not an exceptionally difficult passage.

	SINGLE-COURSE STUDENTS.	DOUBLE-COURSE STUDENTS.
GREEK	**1909.** HOMER, *Iliad*, VI. ARISTOPHANES, *The Clouds.* PLATO, *Apologia.* DEMOSTHENES, *Against Androtion.* LYSIAS, *Against Eratosthenes.* Bury's *History of Greece.* Unseen Translation and Prose Composition, Grammar, Literature, Antiquities, etc. **1910.** HOMER, *Odyssey*, XXI, XXII. EURIPIDES, *Iphigenia in Tauris.* DEMOSTHENES, *Against Leptines.* HERODOTUS, IX. Bury's *History of Greece.* Unseen Translation and Prose Composition, Grammar, Literature, Antiquities, etc.	**1910** and thereafter until further notice. Prose Composition. Unprepared Translation. General Paper in History, Antiquities, Literature, etc. Prescribed Books:—(Translation and Questions) EITHER those prescribed for single-course students of the same year; OR, the books actually read in the Honours Division of the Class; (According as the Candidate has attended the Ordinary or the Honours Division).

IN	SINGLE-COURSE STUDENTS.	DOUBLE-COURSE STUDENTS.
ENGLISH LITERATURE	**October, 1909.** The subjects prescribed for study in the class. See Syllabus prescribed for 1908-9. **May and October, 1910.** The subjects prescribed for study in the class. See p. 75. Students are advised to present themselves at the May or the October examination immediately following their Course, as the subjects studied in the class will be changed from year to year.	**1910** and thereafter until further notice. For information apply to the Professor.

IN	SINGLE-COURSE STUDENTS.	DOUBLE-COURSE STUDENTS.
FRENCH	**1909.** I. Translations into and from French. II. Questions on historical French grammar. Text-book: Darmesteter, *Grammaire historique*, Parts II and IV. French versification. III. Essay in French on the subjects of the Class work, (*a*) *La tragédie classique française au XVII*^{e} *siècle* (with special study of: Corneille, *Cinna*: Racine, *Andromaque and Bérénice*); (*b*) Jean Jacques Rousseau (Extraits Hachette); (*c*) general history of French Literature in the 19th century. IV. Oral Examination.—(I) Reading, translation, and explanation of a passage taken from one of the works mentioned under III (*a* and *b*), or from *Anthologie des Poètes français du XIX*^{e} *siècle* (1800-1866), par Georges Pellissier (Delagrave); Arvers, Brizeux, A. Chénier, Delavigne, Th. Gautier, M. de Guérin, Victor Hugo, Lamartine, H. Moreau, A. de Musset, Nadaud, Ste. Beuve, Soumet, Vigny. (2) Conversation on the subjects of the Class Lectures (see p. 76 of the *Calendar*). **1910.** I. Translations into and from French. II. Questions on language and versification. III. Essay in French on the subjects of the Class Lectures. IV. Oral Examination.—(*a*) Reading and explanation of a passage taken from the works studied in the Class. (*b*) Conversation on the subjects of the Class Lectures (see p. 76 of the *Calendar*).	**1910** and thereafter until further notice. I. Translations into and from French. II. General History of French Literature in the 16th and 17th centuries. III. The French Novel in the first half of the 19th century. IV. La poésie romantique. V. Texts: *Extraits des Poètes du* xvi^{e} *siècle* (Edition Pellissier—Delagrave); Molière, *Le Misanthrope; La Critique de l'Ecole des Femmes*; Pascal, *Les Pensées* (Edn. Brunschvicg); De Vigny, *Cinq Mars*; Th. Gautier, *Le Capitaine Fracasse*; Victor Hugo, *Extraits des Poésies* (Edn. Delagrave).

IN	SINGLE-COURSE STUDENTS.	DOUBLE-COURSE STUDENTS.
GERMAN	**October, 1909.** (1) Unseen Translation, German Essay, and Prose Composition. (2) The Lectures on the history of the language. (3) General Outline of German Literature: special period, 1748-1832. (4) Schiller, *Maria Stuart*; Goethe, *Egmont*, *Iphigenie*; Lessing, *Nathan der Weise*; *Deutsche Lyrik* (Buchheim; Selections). (5) Oral Examination. **1910.** (1) Unseen translation, German Essay, and Prose Composition. (2) The Lectures on the history of the language. (3) General Outline of German Literature: special period, 19th century. (4) (*a*) A first-hand, though not necessarily minute, knowledge of Schiller's dramas. (*b*) Goethe, *Dichtung und Wahrheit* (I.–IV.); Heine, *Die Harzreise*; Grillparzer, *Des Meeres und der Liebe Wellen*; Arnim-Brentano, *Des Knaben Wunderhorn*. (5) Oral examination.	**1910** and thereafter till further notice. Students taking the Ordinary Class for a second time will be examined on the papers for the Ordinary degree, but a higher standard will be required; for those taking the Honours Class the arrangement will, in the meantime, be as follows: in May special papers will be set on the Honours standard, in October the examination will be on part of the papers set for the Honours degree.

IN	SINGLE-COURSE STUDENTS.	DOUBLE-COURSE STUDENTS.
ITALIAN	**October, 1909.** I. Translations into and from Italian. II. Questions on History of Morphology and History of Pronunciation. Text-Books: Stoppato, *Fonologia Italiana*; Cellini, *Autobiografia*; Leopardi, Prose. III. Essay in Italian on (1) the age and works of Chroniclers and Historians down to the 16th century inclusive, (2) the Literature of the 16th century in Italy, with special regard to *Poemi*, *Prosa d'Arte*, *Biografie*. Text-Books: Machiavelli, *Il Principe*; Castiglione, *Il Cortegiano*; Ariosto, *Orlando Furioso*; Tasso, *Gerusalemme Liberata*; Vasari, *Vite*. IV. Oral Examination on the Lectures and Text-Books of the Class work, as well as on books prescribed for reading at home. **1910.** For information apply to the Lecturer.	**1910** and thereafter until further notice. Students should apply to the Lecturer, who will give information relative to the subjects required.

IN	SINGLE-COURSE STUDENTS.	DOUBLE-COURSE STUDENTS.
HEBREW	**October, 1909.** KINGS, Book II.; ISAIAH, Ch. XL.—LXVI.; PSALMS, Book IV. History of Israel, B.C. 854—B.C. 444. History of Old Testament Literature (Kautzsch), and of the Masoretic text (Weir). Unseen translation and pointing; Prose composition; Grammar and Accents. **March and October, 1910.** SAMUEL, Book II.; ISAIAH, Ch. I.—XXIII.; PSALMS, CVII.—CXXXIV. History of Israel, B.C. 854—B.C. 444 (H. P. Smith). History of the Literature (Kautzsch) and Text (Weir) of the Old Testament. Unseen translation and pointing; Prose composition; Grammar and Accents.	**1910** and thereafter till further notice. For information apply to the Professor.
ARABIC	Korān. The Suras contained in Nallino's *Chrestomathia Korani Arabica.* Tabari and Ibn Khaldun in the *Semitic Study Series.* The Ajurrumiya. *El Fakhri*: the reign of Rashid Nöldeke's *Delectus Veterum Carminum Arabicorum*, pp. 7, 8, 29, 40—43, 53—57, 61—64, 73—83, and 110—111. History and Literature:—Sale's Preliminary Dissertation on the Koran. History of the Arabs and their literature to the death of the Caliph Othman. Unseen translation; unpointed text to be pointed, translation from English into Arabic; Grammar, Syntax, and Prosody	**1910** and thereafter till further notice. Majani 'l Adab, Vol. I., Parts III., V., VIII.—XII.; and Vol. VI., pp. 184—209. One Muallaka with commentary. Selection from *El Fakhri* in De Sacy's *Chrestomathie.*

IN	SINGLE-COURSE STUDENTS.	DOUBLE-COURSE STUDENTS.
CELTIC	*Old Gaelic.* Strachan's Selections from the *Tāin Bo Cuaibnge*; *Liadain and Curithir* (ed. Kuno Meyer). *Four Old Irish Songs of Summer and Winter* (ed. and translated by Kuno Meyer). Grammatical and Literary Questions. *Modern Gaelic.* *Orain Ghaidhealach* le Donnchadh Bān Mac An t-Saoir; *Ais-éirigh na Sean Chānoin Albannaich* le Alasdair Mac Dhomhnuill; *Caraid Nan Gaidheal* (by Dr. Norman Macleod); *The Three Sorrows of Story-Telling*, in the original texts. Translations from English into Modern Gaelic, and from Gaelic authors not prescribed. *History and Literature.* The M'Callum Lectures by Professor Magnus Maclean. More minute study of the literary bearings of the works prescribed.	**1910** and thereafter till further notice. Students should apply to the Lecturer, who will give all information relative to the subjects required.
LOGIC	The Class Lectures. Berkeley's *Principles of Human Knowledge* (in Fraser's *Selections from Berkeley*).	**1910** and thereafter until further notice. Candidates who have taken a second course in Logic will, in addition, be examined on either (*a*) the subjects, authors, or periods discussed in the lectures of the Honours Class during the session in which the candidate has attended that class, or (*b*) the Class-Lectures and the books prescribed in Experimental Psychology.

IN	SINGLE-COURSE STUDENTS.	DOUBLE-COURSE STUDENTS.
MORAL PHILOSOPHY	The Professor's Lectures during the session in which the student examined has attended the Moral Philosophy Class, the *Republic* of Plato (translated by Davies and Vaughan), and Green, *Prolegomena to Ethics*.	**1910** and thereafter until further notice. The subjects of examination for the first session, together with the Lectures in the Higher Class and the reading prescribed in connection therewith during the session in which the student examined has attended the class.
POLITICAL ECONOMY	The Lectures and Text-books of the session in which the student has attended the class.	**1910** and thereafter till further notice. The Lectures in the combined class of Political Philosophy and Social Economics and the Text-books prescribed for study in the class.

IN	SINGLE-COURSE STUDENTS.	DOUBLE-COURSE STUDENTS.
EDUCATION	The Class Lectures; the educational doctrine of Plato's *Republic*, I.—VII.(as indicated, *e.g.*, in Nettleship's *Lectures on Plato's Republic*, V., VIII., XII.); Rousseau, *Émile*, I.—IV.	
MATHEMATICS	Euclid, First Six Books, and Book XI, 1—21. Analytical Geometry of straight line and circle. Algebra, including Quadratic Equations, Progressions, and Binomial, Exponential, and Logarithmic Theorems. Plane Trigonometry, including the Solution of Triangles by the aid of Logarithmic tables.	**1910** and thereafter till further notice. Candidates should apply to the Professor for information.
NATURAL PHILOSOPHY	The subjects explained in the class. Dynamics, Acoustics, Heat, Light, Magnetism, and Electricity.	**1910** and thereafter till further notice. Candidates should apply to the Professor. A notice will be put up when the session opens.
ASTRONOMY	The Professor's Lectures during the session or sessions in which the student has attended the class, and Popular Astronomy.	

IN	SINGLE-COURSE STUDENTS.	DOUBLE-COURSE STUDENTS.
CHEMISTRY	Theory: Principles of Chemistry, Chemistry of the Non-Metallic and the Principal Metallic Elements. Outlines of Organic Chemistry. Practical: Inorganic preparations. Qualitative analysis, including mixtures. Text-books: Newth's *Inorganic Chemistry* or Bloxam's *Chemistry* or Richter's *Inorganic Chemistry*; Ramsay's *Modern Chemistry*; Perkin and Kipping's *Organic Chemistry* or Remsen's *Organic Chemistry*.	
ZOOLOGY	The Elementary Lectures and Practical Work, together with one course of more advanced instruction. Text-books by Shipley & MacBride; Marshall & Hurst; Jordan and Kellog, *Evolution and Animal Life*; Weismann's *Evolution Theory*.	
BOTANY	The syllabus of work in the course of Botany for M.A. (from April, 1908, till further notice) may be obtained at the Matriculation Office. Books recommended: Strasburger, *Text-Book of Botany*. For description of types—Scott, *Structural Botany*: I. Flowering Plants. II. Flowerless Plants. Flora—Hooker, *Student's Flora*. There will be one three-hour paper, and a practical and oral examination.	
GEOLOGY[1]	The Materials of the Earth's Crust and Elementary Mineralogy, Physical and Structural Geology; Stratigraphy; Elementary Palaeontology, Economic Geology, including the study of Soils, Water Supply, Building Stones, and geological questions connected with Public health; General Geology of Scotland, with especial reference to the Glasgow district.	

[1] The examination in this and the three preceding subjects will be oral and practical, as well as by written papers.

IN	SINGLE-COURSE STUDENTS.	DOUBLE-COURSE STUDENTS.
HISTORY	Outlines of European (including British) History, A.D. 476-1453.	**1910** and thereafter till further notice. For information apply to the Professor.
CONSTITUTIONAL LAW AND HISTORY	The Class Lectures with Taswell-Langmead's *English Constitutional History* and Dicey's *Law of the Constitution.*	**1910** and thereafter till further notice. For information apply to the Lecturer.
ROMAN LAW	Institutes of Justinian (ed. Moyle or Sandars), and the Class Lectures. *Note.*—Candidates who aim at a degree in Law are recommended, in addition to the above, to profess *Dig.*, Lib. XVIII, Tit. I. The title is translated and annotated by Mackintosh—Roman Law of Sale.	

LLABUS OF EXAMINATIONS FOR THE DEGREE WITH HONOURS.

IN CLASSICS.

October, 1909, and thereafter, the Examination will comprise ollowing papers :

Greek Prose, 3 hours.
Latin Prose, 3 hours.
Unprepared Translation : Greek, 3 hours.
" " Latin, 3 hours.
Verses { Greek, Latin } *Optional.*
General Paper in History, Antiquities, Literature, etc. Greek and Latin, - } 3 hours.
‡ Prescribed Books : Translation—Greek, 3 hours.
" " " Latin, 3 hours.
Prescribed Books : Questions—Greek, 3 hours
" " " Latin, 3 hours.
* Named Authors : Greek, 3 hours.
" " Latin, 3 hours.

‡ PRESCRIBED BOOKS.

reek :
1. Homer : *Iliad.*
2. Aeschylus : *Agamemnon, Choephori, Eumenides.*
3. Thucydides II, *or* Herodotus VII.
4. Plato : *Phaedo.*
5. Aristotle : *Poetics*, or *Ethics* I and II.

atin :
1. Virgil : *Eclogues, Georgics, Aeneid.*
2. Horace : *Satires, Epistles*, and *Ars Poetica.*
3. Plautus : *Captivi.*
4. Cicero : *Tusculan Disputations, or* Tyrrell's Selection from the *Letters.*
5. Livy VII–IX.
6. Tacitus : *Annals*, XI–XIV.

* NAMED AUTHORS.

reek :
Passages to be translated from any three of these four.
{ Sophocles. Euripides. Aristophanes. Pindar. }
{ Thucydides. Herodotus. Plato. Demosthenes. }

atin :
Five passages will be set, of which any three are to be translated, from
{ Terence. Lucretius. Catullus *with* Propertius. Ovid. Lucan. Juvenal. Martial. }
{ Cicero (always two passages). Sallust. Caesar. Quintilian. }

lidates will only be required to translate, not to explain, the passages from l Authors. They will be expected to have sufficient general knowledge of uthors to be able to translate an average, not an exceptionally difficult, passage.

ENGLISH.

The subjects of examination in English [*i.e.* English Literature, with Language and History as subsidiary subjects] will be as follows :

I. LITERATURE.—(1) General History of English Literature. Two papers will be set, of which the first will deal more particularly with Chaucer, Spenser, and the rise of the Drama. (2) One author to be selected by the candidate and approved by the Professor. (3) Shakespeare. (4) A Dissertation on some subject approved by the Professor ; the dissertation to be sent in to the Clerk of Senate not less than a month before the first day of the examination at which the candidate presents himself.

II. LANGUAGE.—(1) Prescribed texts: *Beowulf*, Sweet's *Anglo-Saxon Reader*, Morris and Skeat's *Specimens of Early English*, Parts 1 and 2. (2) Translations from texts not prescribed. (3) General History of English Language with special reference to the development of Standard English, Old and Middle English Grammar. (4) English Literature from the origins to the middle of the fourteenth century.

III. HISTORY.—"The Puritan Revolution (1558-1660)." The books prescribed as texts are : *The Life of Lord Herbert of Cherbury* ; Clarendon's *History of the Rebellion*, Books I, II, III to section 66 (the reference is to the Oxford edition of 1888) ; Milton's *Areopagitica* ; and a general knowledge of Carlyle's *Letters and Speeches of Cromwell* will be required.

FRENCH.

1909.

I. Translations from Old French and from English into Modern French. Translations into English.

II. Essay in English on Historical French Grammar. Text-books : A. Darmesteter, *Grammaire historique de la Langue française* ; Brunot, *Histoire de la Langue française.*

III. and IV. Essays in French on French Literature (*a*) General History, (*b*) Special Study of one of the following periods : (1) The Middle Ages ; (2) The 16th and 17th centuries ; (3) The 18th and 19th centuries.

V. Oral Examination.—(*a*) Reading, Translation, and Explanation of a text selected from one of the following books : Gaston Paris, *Chanson de Roland, Chrestomathie du Moyen Age, Extraits des Chroniqueurs français* ; Jeanroy, *Montaigne's Essais* ; Pellissier, *Extraits des poètes français du XVI^e siècle* ; Du Bellay, *Defense et Illustration de la Langue française* ; H. Estienne, *De la précellence du Langage français* ; Rabelais, *Pages choisies* (A. Colin), or a text of modern French ; (*b*) A question to be answered on a subject or author, selected by the candidate, and approved by the Lecturer at least a month before the Examination takes place ; (*c*) French History in the 19th century.

1910.

I. (As above.)

II. Questions on the language and versification of old texts, the history of the French Language and Historical French Grammar.

III. Questions on the General History of French Literature.

IV. Essai in French on a subject taken from *one* of the following periods : (1) The Middle Ages ; (2) The 16th and 17th centuries ; (3) The 18th and 19th centuries.

V. Oral Examination—(*a*) (As above as far as line 6, "Colin") ; (*b*) Explanation of a text of Modern French ; (*c*) (as (*b*) above) ; (*d*) (as (*c*) above).

GERMAN.

1909.

I. Translation from English and Middle High German into Modern erman ; Historical German Grammar ; Faust, Part I

II. Middle High German (*a*) either *Iwein* (Books I.—IV.), or *der arme einrich* ; (*b*) *das Nibelungenlied* (I.—X.), or *Walther von der Vogelweide*, ieder 1—50), or Old High German, or Gothic.

III. General History of German Literature to the year 1832, with a special nowledge of the Classical periods.

IV. Oral Examination.

Books prescribed : Wright, *Middle High German Primer* ; Paul, *Mittel ochdeutsche Grammatik* ; "Deutsche Classiker des Mittelalters," *der arme einrich*, *Iwein*, *Das Nibelungenlied*, *Walther von der Vogelweide*, published y Brockhaus, Leipzig : Kluge, *Geschichte der deutschen National Litteratur* ; cherer, *Geschichte der deutschen Litteratur* ; Behagel, *History of the German anguage* ; *Faust* (Part I.), Calvin Thomas ; Sahr, *Sachs und Fischart*.

1910.

I. Translation from English into German and German into English.

II. (*a*) Old High German : *Althochdeutsche Literatur* (Schauffler, Goschen) ;) Middle High German : (1) *Walther von der Vogelweide* (Güntter, Goschen), 2) *Das Nibelungenlied* (I.—V.) ; (*c*) Historical German Grammar.

III. General Outline of German Literature.

IV. Special knowledge of 19th century literature, with critical knowledge f classics of this period.

V. Oral examination.

1911.

I Translation from English into German and German into English.

II. (*a*) Old High German : *Althochdeutsche Literatur* (Schauffler, Goschen) ;) Middle High German : (1) Hartmann, *Der arme Heinrich* ; *Kudrun* oschen) ; (*c*) Die deutsche Heldensage (Goschen) ; (*d*) Historical German rammar.

III. General Outline of German Literature and German History.

IV. Special knowledge of German Literature in 17th and 19th centuries, ith critical knowledge of the classics of these periods

V. Oral examination.

ITALIAN.

October, 1909.

I. Translations from Monaci's Crestomazia, and from English into Modern alian.

II. Essay in English on Italian Historical Grammar.

III. Essay in Italian on general history of Italian Literature.

IV. Essay on Dante or Dante Literature. Essay on the History of orence and Venice.

V. Oral Examination on Class work and on readings at home.

HEBREW.

Proverbs, Job, and Ezekiel.

Petermann's Selections from the Targums.

The treatise *Aboda Zara.*

Brody and Albrecht's *New Hebrew School of Poets*, numbers 32—39 and 74—87 inclusive.

History and Antiquities of Israel.

History of Literature to the close of the Talmud.

Composition and unseen Translation.

Comparative Grammar of the Semitic Languages.

ARABIC.

The Korān: Baidawi's Commentary on selected chapters; Brünnow's Chrestomathie; Hariri, Makamat, VII, IX, XIII, and XXV; the introduction to *El Fekhri*; Majani 'l Adab, Vol. VI. pp. 113—119, 184—209, together with the selections from Abul Ala and Mutanabbi.

CELTIC.

For information apply to the Lecturer.

LOGIC.

October, 1909, and until further notice.

(*a*) Logic and Psychology: the subjects of the Class Lectures, Ordinary and Advanced. Candidates will be expected to have read some of the larger modern treatises on Logic, such as Mill, Venn, Sigwart, or Bosanquet, and a treatise on Psychology such as Stout's *Analytic Psychology* or James's *Principles of Psychology.*

(*b*) Metaphysics: (1) Kant's *Kritik of Pure Reason.* (2) *Two* of the following subjects, one to be a subject in Greek Philosophy and one in Modern Philosophy: (i.) History of Greek Philosophy up to Aristotle; (ii.) Aristotle and the Post-Aristotelian systems (exclusive of Neo-Platonism); (iii.) Descartes and Cartesianism, Spinoza and Leibniz; (iv.) Locke, Berkeley and Hume; (v.) Hegel's smaller *Logic* (Wallace's translation).

MORAL PHILOSOPHY.

Candidates for Honours will be examined in: (1) The Professor's Lectures; (2) Aristotle's *Ethics* (omitting Books VII and VIII), Aristotle's *Politics*, Books I—IV, and, in connection therewith, the History of Ethical Thought in Greece previous to Aristotle; (3) Spinoza's *Ethics*; (4) The Ethical Theory of Kant, together with Caird's *Philosophy of Kant*, Books II, III, IV, and Green's *Prolegomena to Ethics*; (5) the general history of Modern Hedonism; (6) The history of Political Theories from Hobbes to Rousseau.

Candidates are, in addition, expected to offer for examination some book, subject, author, or period; or to submit a thesis on a subject in Philosophy, *either* in Logic *or* in Moral Philosophy, such thesis to be lodged by the candidate when entering his name for examination.

ECONOMIC SCIENCE.

I. Political Economy.—The subjects of the Class Lectures, Ordinary and Advanced. Prescribed books: Bosanquet, *Philosophical Theory of the State*; Marshall, *Principles of Economics*; Bastable, *Public Finance*; Seligman, *Essays in Taxation*; Ingram, *History of Political Economy*; Nicholson, *Money and Monetary Problems*; Warner, *Landmarks of English Industrial*

History; *Memoranda on Classification and Incidence of Imperial and Local Taxes* (Blue-book), pp. 66–175; *British and Foreign Trade and Industry*—First Series, 1903, Report of the Royal Commission on the Poor Laws. [Cd. 4499.] Candidates will be required to submit a thesis on some subject to be approved by the Professor.

II. *Either* (*a*) LOGIC—see the regulations for Honours in Logic *ut supra*.

Or (*b*) MORAL PHILOSOPHY—see the regulations for Honours in Moral Philosophy *ut supra*.

Or (*c*) HISTORY.—The Course by the Lecturer on British History, or the Honours Class of the Professor of History. British Economic History to be studied in Cunningham, *Growth of English Industry and Commerce*; and Ashley, *Economic History*.

MATHEMATICS.

In addition to the subjects prescribed for the Ordinary Degree, Plane and Spherical Trigonometry; Analytical Geometry of two and three Dimensions; Differential and Integral Calculus; Differential Equations; and special subjects given in summer courses.

NATURAL PHILOSOPHY.

The subjects for Honours are grouped as follows:

Group I.—Higher Dynamics (Statics and Kinetics of a particle and of a rigid body, including attractions).

Group II.—(1) Hydrodynamics, including Sound; (2) Elasticity; (3) Thermodynamics and Conduction of Heat.

Group III. (1) Geometric Optics; (2) Physical Optics; (3) Electromagnetism and Electromagnetic Theory of Light; (4) the Theory of Alternating Currents.

Note carefully—Every candidate must choose Group I., and at least one subject from each of the other groups. Ordinarily the first paper will be set on Group I., the second on Group II., and the third on Group III.

Candidates for Honours must be prepared to answer general questions outside their profession, to apply their knowledge of principles to the solution of unseen problems, and to discuss questions other than those dealt with in the class.

HISTORY.

October, 1909.

Candidates will be examined in the following subjects: (1) British History to 1880. This subject includes the History of England and Scotland, the History of Ireland from the reign of Henry II., and the History of the Colonial Empire of Great Britain. (2) The General History of the English Constitution. (3) The Constitutional Law and Custom of Great Britain and the United States of America. Prescribed books: Dicey, *Law of the Constitution*; Anson, *Law and Custom of the Constitution*; Bryce, *American Commonwealth*. (4) The growth of the English Constitution to the close of he reign of Edward I. Prescribed book: Stubbs, *Select Charters*. (5) Outines of European History, A.D. 476-1453.

Candidates may, *in addition*, submit through the Professor of History a hesis on some subject of British or Foreign History to be approved by the Board of Examiners for Honours in History. This should, as far as possible, be based on the leading original authorities on the subject of which it treats. Such thesis, when offered, will be considered as forming an integral part of he examination.

TABLE OF EXAMINATIONS FOR THE DEGREE OF M.A., TO BE HELD DURING SESSION 1909-10.

Names to be given in and Fees paid to Assistant-Clerk[1] (Matriculation Office). Date.[2]	FEE.	I. EXAMINATIONS IN THE BEGINNING OF THE SESSION.		
3rd Sept., 1909.	£1 1s. for Each Subject until £5 5s. shall have been paid.	Mathematics (Ord., Higher, and Hon.)	Friday, 24th Sept.,	9—12 noon and 2—5 p.m.
		Italian,	Do., do.,	9—12 noon and 2—5 p.m.
		Astronomy, 1st Paper,	Saturday, 25th Sept.,	9—12 noon.
		Education,	Do., do.,	2—5 p.m.
		Botany,	Monday, 27th Sept.,	9—12 noon.
		Chemistry,	Do., do.,	2—5 p.m.
		Zoology,	Tuesday, 28th Sept.,	9—12 noon.
		Mathematics (Hon.),	Wed., 29th Sept.,	9—11 a.m.
		Hebrew,	Do., do.,	9—12 noon and 2—5 p.m.
		History (Hon.),	Do., do.	9—12 noon and 2—5 p.m.
		English Literature (Hon.),	Do., do.,	9—12 noon and 2—5 p.m.
		German (Hon.),	Do., do.,	9—12 noon and 2—5 p.m.
		Constitutional Law and History,	Do., do.,	9—12 noon.
		Astronomy, 2nd Paper,	Do., do.,	2—5 p.m.
		Roman Law,	Do., do.,	2—5 p.m.
		History (Hon.),	Thursday, 30th Sept.,	9—12 noon and 2—5 p.m.
		English Literature (Hon.),	Do., do.,	9—12 noon and 2—5 p.m.
		French (Hon.),	Do., do.,	9—12 noon and 2—5 p.m.
		Moral Philosophy (Hon.),	Do., do.,	9—12 noon and 2—5 p.m.
		Moral Philosophy (Ord.),	Do., do.,	9—12 noon.
		English Literature (Ord.),	Do., do.,	2—5 p.m.
		Celtic, 1st Paper,	Do., do.,	2—5 p.m.

---

[1] For Women Students, Miss Melville, Queen Margaret College.

[2] When names are not given in, and fees are not paid on or before the stated dates, a late Entry Fee of Ten Shillings must be paid before the candidate can be admitted to examination. A candidate is not held to be entered for the examination until his name is entered, the fee paid, and all the necessary certificates, etc., lodged. Late Entry Fees will not be accepted less than three days before the date of Examination.

(Matriculation Office). Date.[2]		THE BEGINNING OF THE SESSION.		
3rd Sept., 1909.	£1 1s. for Each Subject until £5 5s. shall have been paid.	History (Hon.),	Friday, 1st October,	9—12 noon and 2—5 p.m.
		English Literature (Hon.),	Do., do.,	9—12 noon and 2—5 p.m.
		Logic (Hon.),	Do., do.,	9—12 noon and 2—5 p.m.
		Logic (Ord.),	Do., do.,	9—12 noon.
		Political Economy (Hon.),	Do., do.,	9—12 noon and 6—9 p.m.
		Celtic, 2nd Paper,	Do., do.,	2—5 p.m.
		Latin and Greek (Higher and Hon.),	Do., do.,	2—5 p.m.
		Political Economy (Ord.),	Do., do.,	6—9 p.m.
		Natural Philosophy (Ord. and Hon.),	Saturday, 2nd Oct.,	9—12 noon and 2—5 p.m.
		Latin (Higher and Hon.),	Do., do.,	9—12 noon and 2—5 p.m.
		History (Ord. and Hon.),	Monday, 4th Oct.,	9—12 noon and 2—5 p.m.
		English Literature (Hon.),	Do., do.,	9—12 noon and 2—5 p.m.
		Latin (Higher and Hon.),	Do., do.,	9—12 noon and 2—5 p.m.
		Natural Philosophy (Hon.),	Do., do.,	9—12 noon.
		Mental Philosophy (Hon.),	Do., do.,	2—6 p.m.
		Latin (Ord.),	Tuesday, 5th Oct.,	9—11 a.m., 12—2 p.m., 3—5 p.m.
		British History (Hon. in English),	Do., do.,	9—11 a.m., 12—2 p.m.
		Geology, Paper I.,	Do., do.,	9—12 noon
		Latin (Higher and Hon.),	Do., do.,	9—12 noon.
		Latin Verse (Optional) (Higher and Hon.),	Do., do.,	2—5 p.m.
		Geology, Paper II.,	Wednesday, 6th Oct.	9—11 a.m.
		French (Ord., Higher, and Hon.),	Do., do.,	9—12 noon and 2—5 p.m.
		Greek (Hon.),	Do., do.,	9—12 noon and 2—5 p.m.
		Geology (Practical),	Do., do.,	2—5 p.m.
		German (Ord. and Hon.),	Thursday, 7th Oct.,	9—12 noon and 2—5 p.m.
		Greek (Hon.),	Do., do.,	9—12 noon and 2—5 p.m.
		French (Higher).	Do., do.,	9—12 noon.
		Greek (Ord. and Higher),	Friday, 8th October,	9—11 a.m., 12—2 p.m., 3—5 p.m.
		Greek (Hon.),	Do., do.,	9—12 noon.
		Greek Verse (Optional) (Hon.).	Do., do.,	2—5 p.m.

---

[1] For Women Students, Miss Melville, Queen Margaret College.

[2] When names are not given in, and fees are not paid on or before the stated dates, a late Entry Fee of Ten Shillings must be paid before the candidate can be admitted to examination. A candidate is not held to be entered for the examination until his name is entered, the fee paid, and all the necessary certificates, etc., lodged. Late Entry Fees will not be accepted less than three days before the date of examination.

TABLE OF EXAMINATIONS FOR THE DEGREE OF M.A., TO BE HELD DURING SESSION 1909-10

Names to be given in and Fees paid to Assistant-Clerk[1] (Matriculation Office). Date.[2]	FEE.	II. EXAMINATIONS IN MARCH, 1909.		
4th March, 1910.	£1 1s. FOR EACH SUBJECT UNTIL £5 5s. SHALL HAVE BEEN PAID.	Mathematics (Ord., Higher, and Hon.),	Friday, 18th March,	9—12 noon and 2—5 p.m.
		Astronomy, 1st Paper,	Saturday, 19th Mar.,	9—12 noon.
		Constitutional Law and History (Ord. and Higher),	Do., do.,	9—12 noon.
		Roman Law,	Do., do.,	2—5 p.m.
		Mathematics (Hon.),	Monday, 21st Mar.,	9—11 a.m.
		Zoology,	Do., do.,	9—12 noon.
		Chemistry,	Do., do.,	2—5 p.m.
		Botany,	Tuesday, 22nd Mar.,	9—12 noon.
		Astronomy, 2nd Paper,	Do., do.,	2—5 p.m.
		Hebrew (Ord. and Higher),	Wednesday, 23rd Mar.,	9—12 noon and 2—5 p.m.
		Natural Philosophy (Ord., Higher, and Hon.),	Thursday, 24th Mar.,	9—12 noon and 2—5 p.m.
		Natural Philosophy (Hon.).	Friday, 25th March,	9—12 noon.
		Geology—Paper I.,	Saturday, 26th Mar.,	9—12 noon.
		,, (Practical),	Do., do.,	2—5 p.m.
		,, —Paper II.,	Monday, 28th Mar.,	9—11 a.m.

---

[1] For Women Students, Miss Melville, Queen Margaret College

[2] When Names are not given in and Fees are not paid on or before the stated dates, a late Entry Fee of Ten Shillings must be paid before the candidate can be admitted to examination. A candidate is not held to be entered for the examination until his name is entered, the fee paid, and all the necessary certificates, etc., lodged. Late Entry Fees will not be accepted less than three days before the date of Examination.

TABLE OF EXAMINATIONS FOR THE DEGREE OF M.A., TO BE HELD DURING SESSION 1909-10.

Names to be given in and Fees paid to Assistant-Clerk [1] (Matriculation Office). Date.[2]	Fee.	III. Examinations in May and June, 1910.		
6th May, 1910	£1 1s. for each Subject until £5 5s. shall have been paid.	Education,	Saturday, 21st May,	9—12 noon.
		Political Economy (Ord. and Higher),	Do., do.,	2—5 p.m.
		English Literature (Higher),	Monday, 23rd May,	9—12 noon and 2—5 p.m.
		,, ,, (Ord.),	Do., do.,	9—12 noon.
		Moral Philosophy (Higher),	Tuesday, 24th May,	9—12 noon and 2—5 p.m.
		,, ,, (Ord.),	Do., do.,	9—12 noon.
		Logic (Higher),	Wed., 25th May,	9—12 noon and 2—5 p.m.
		,, (Ord.),	Do., do.,	9—12 noon.
		History (Ord. and Higher),	Thursday, 26th May,	9—12 noon and 2—5 p.m.
		Latin (Ord. and Higher),	Friday, 27th May,	9—11 a.m., 12—2, & 3—5 p.m.
		,, (Higher),	Saturday, 28th May,	9—11 a.m., 12—2, & 3—5 p.m.
		French (Ord. and Higher),	Monday, 30th May,	9—12 noon and 2—5 p.m.
		,, (Higher),	Tuesday, 31st May,	9—12 noon.
		German (Ord. and Higher),	Do., do.,	2—5 p.m.
		,, (Ord. and Higher),	Wed., 1st June,	9—12 noon.
		,, (Higher),	Do., do.,	2—5 p.m.
		Greek (Ord. and Higher),	Thursday, 2nd June,	9—11 a.m., 12—2, & 3—5 p.m.
		,, (Higher),	Friday, 3rd June,	9—11 a.m.
		Celtic (Ord. and Higher),	Do., do.,	9—12 noon and 2—5 p.m.
		Italian (Ord. and Higher),	Saturday, 4th June,	9—12 noon and 2—5 p.m.

---

[1] For Women Students, Miss Melville, Queen Margaret College.

[2] When names are not given in, and fees are not paid on or before the stated dates, a Late Entry Fee of Ten Shillings must be paid before the candidate can be admitted to examination. A candidate is not held to be entered for the examination until his name is entered, the fee paid, and all the necessary certificates, etc., lodged. Late Entry Fees will not be accepted less than three days before the date of Examination.

2.—GRADUATION IN SCIENCE.

The Scottish University Commissioners (1889) have ordained that two Degrees in Science may be conferred by each of the Universities of Scotland—viz., Bachelor of Science (B.Sc.) and Doctor of Science (D.Sc.). These Degrees may be given in Pure Science and in Applied Science.

Degrees in Pure Science.

The following are the provisions of Ordinances No. 12[1], No. 42, No. 44, and No. 155 as they apply to this University :—

I. Two Degrees in Science may be conferred by the University of Glasgow—viz., Bachelor of Science (B.Sc.) and Doctor of Science (D.Sc.).

II. Every candidate for the Degree of Bachelor of Science must pass the Preliminary Examination prescribed by the Arts Ordinance (Regulations for Degrees in Arts); and the conditions with respect thereto imposed by that ordinance (see pp. 212—220 and 227, 228) are applicable in all respects to candidates for the Degree of Bachelor of Science, except as follows:—(1) French or German may be substituted for Latin or Greek [See also foot of p. 213] ; (2) Mathematics must be passed on the higher standard;[2] (3) a degree in Arts (not being a degree *honoris causa tantum*) in any of the Universities of the United Kingdom, or in any Colonial or Foreign University specially recognised for the purpose by the University Court after consultation with the Senatus, exempts from the Preliminary Examination.

III. (1) Candidates for the Degree of Bachelor of Science must, in the course of not less than three academical years, attend at least seven courses of instruction, in subjects prescribed for examination under Sections VIII. and IX. below.

(2) Three of these courses must be in subjects prescribed for the First Science Examination under Section VIII.; and four must be in subjects prescribed for the Final Science Examination under Section IX.

IV. (1) Four of the seven courses must be taken in this University.

(2) Three may be taken in other Universities or Institutions approved by the University Court, or under teachers recognised by the University

---

[1] This ordinance was printed in full in the *University Calendar* for 1892-93, pp. 485-488, and the modifications made by Ordinance No. 42 were indicated, by means of square brackets, in the *University Calendar* for 1894-95.

[2] A student who, having passed the Arts Preliminary Examination in accordance with the provisions of the Arts Ordinance, has thereafter obtained a certificate of attendance on a qualifying class of Mathematics, shall not be required to pass any further examination in Mathematics as a condition of entering on the course of study for graduation in Science under the provisions of Ordinance No. 12. See Ordinance No. 44, Section V. Candidates for the Degree of B.Sc. in Pure Science may offer themselves for examination in Mathematics on the intermediate instead of on the higher standard ; provided that in addition to the ancient or modern language already taken they also offer themselves for examination in a modern language as a fifth subject, such further examination to be on the standard prescribed by the Joint Board for the Medical Preliminary. Notwithstanding these provisions, candidates shall not be entitled to profess at the Final Science Examination Mathematics, Natural Philosophy, or Astronomy, unless they have passed the Preliminary Examination in Mathematics on the higher standard. See Ordinance No. 155, Section I.

Court for purposes of graduation in Science: Provided that the fees for attendance at an approved Institution or under a recognised teacher in Glasgow shall not be less than the fees exigible for the corresponding courses in the University.

V. All candidates, not matriculated students of the University, availing themselves of the permission to attend lectures at approved Institutions or by recognised teachers in Glasgow, shall at the commencement of each year of such attendance enrol their names in a book to be kept for that purpose in the University, paying a fee of the same amount as the Matriculation Fee paid by students of the University, and having in respect of such payment a right to the use of the Library of the University.

VI. (1) After receiving through the Faculty of Science the opinion of the Board of Studies, the Senatus determines from time to time the number of meetings of which a full course in any subject shall consist, and reports its determination to the University Court for its approval.

(2) After receiving through the Faculty of Science the opinion of the Board of Studies, the Senatus, with the approval of the University Court, may sanction half courses of not less than half the number of meetings which constitute a full course in the subject; but two half courses shall be held to be equivalent to a full course in such cases as the Senatus, with the approval of the University Court, may determine, and under such regulations as may from time to time be made for that purpose.

(3) It is the duty of each Professor and Lecturer annually at the end of each winter session to submit to the Board of Studies a scheme specifying what proportion of the courses shall be devoted to lectures, practical demonstrations, examinations, and tutorial work respectively. The Board of Studies shall transmit the schemes to the Faculty of Science, who shall submit them to the Senate with such observations as they may think fit to make thereon. The Senatus transmits such schemes, with such observations as it may think fit to make thereon, to the University Court for its approval.

(4) It is the duty of the Professors and Lecturers annually at the end of each winter session to submit to the Faculty of Science, for its consideration, a syllabus of the subjects and books proposed for the work of their classes during the next academical year. The Faculty of Science transmits such syllabus, with such observations as it may think fit to make thereon, to the Senatus for its approval.

VII. The provisions of the preceding section do not apply to approved institutions or recognised teachers outside Glasgow; but the University Court shall not grant or continue recognition to any institutions or teachers unless they shall be satisfied that their courses of instruction are equivalent to the courses sanctioned in the Universities of Scotland.

VIII. (1) There is a First Science Examination[1] in the three following subjects—viz., (1) Mathematics or Biology (*i.e.* Zoology and Botany): (2) Natural Philosophy; (3) Chemistry.

(2) The examination in all these subjects is the same as the examination in these subjects for the Ordinary Degree of Master of Arts.

---

[1] This examination includes practical work in the subjects admitting of, or requiring it.

(3) Candidates may present themselves in any one or more of these subjects at any examination held after they have attended a full course in the subject or subjects professed.

IX. (1) There is a Final Science Examination[1] on a higher standard in any three or more of the following subjects:—

1. Mathematics.
2. Natural Philosophy.
3. Astronomy.
4. Chemistry.
5. Human Anatomy, including Anthropology.
6. Physiology.
7. Geology, including Mineralogy.[2]
8. Zoology, including Comparative Anatomy.
9. Botany, including Vegetable Physiology.

(2) The standard of this examination shall be as nearly as possible equivalent to that of the examination for the Degree of Master of Arts with Honours, where the subjects are different; and where the subjects are the same the examination shall be identical.

(3) A subject already taken under the preceding section for the First Science Examination may be taken also under this section for the Final Science Examination.

(4) Candidates presenting themselves for this examination must have attended four full courses of higher instruction, including practical or laboratory work, in the subjects professed, subject always to the provisions of Sections VI. and VII. hereof.

(5) The Final Science Examination shall be taken not less than one year after the candidate has passed the First Science Examination.

The Senate, with the approval of the University Court, has framed the following regulations for the Final Science Examination, viz.:

(*a*) A candidate shall be allowed the option of presenting himself in any one subject for the Final Science Examination, or in two, or in three or more at one time.

(*b*) One of the subjects taken by each candidate shall be chosen by him to be the principal subject in his examination, and the remaining two or more shall be considered to be subsidiary subjects.

(*c*) A candidate having selected his principal subject should consult the Professor of that subject, and determine which are to be his subsidiary subjects. After deciding upon the choice and scope of the subsidiary subjects to be offered a statement embodying this decision must be submitted to the Senate for approval.

(*d*) The subsidiary subjects must be, in part at least, cognate to the principal subject, and the examination in them shall also be upon an Honours standard, but shall have special regard to those parts of the subjects which are cognate to the principal subject.

The following list has been drawn up by the Faculty of Science for the guidance of students in choosing a suitable combination of subjects:

---

[1] This examination includes practical work in the subjects admitting of, or requiring it.

[2] The higher course in Geology, including mineralogy, consists of fifty lectures together with practical Laboratory work.

Principal Subject.	Subsidiary Subjects.
1. Mathematics.	Natural Philosophy; Astronomy; Chemistry; Geology.
2. Natural Philosophy.	Mathematics; Astronomy; Chemistry; Geology.
3. Astronomy.	Mathematics; Natural Philosophy, Geology; Chemistry.
4. Chemistry.	Mathematics; Natural Philosophy; Physiology; Geology; Zoology, Botany.
5. Human Anatomy, including Anthropology.	Physiology; Zoology; Botany.
6. Physiology.	Chemistry; Human Anatomy; Zoology; Botany.
7. Geology, including Mineralogy.	Chemistry; Zoology; Botany; Mathematics; Natural Philosophy.
8. Zoology, including Comparative Anatomy.	Human Anatomy; Physiology; Geology; Botany.
9. Botany, including Vegetable Physiology.	Chemistry; Physiology; Geology; Zoology.

(e) Candidates shall be required to state at the time they enter for the inal examination in each subject whether they desire it to be recorded .s their principal subject or as a subsidiary subject, and in the event of he latter being the case they shall be required to state which subject hey propose to take as their principal subject.

(f) In estimating the attainments of the various candidates in any ubject the Examiners may take into account the duly attested records of heir practical work.

X. If a student, before passing the Preliminary Examination, has ttended a class qualifying for graduation, the Senatus may, on special ause shown, permit him to count such class for graduation, on condiion of his passing the full Preliminary Examination within such time ereafter as the Senatus may appoint, and in every case the Senatus hall make a report to the University Court setting forth the reasons for e relaxation.

XI. A candidate for the degree of Bachelor of Science shall not be eemed to have attended a class as part of the curriculum for that egree who does not present a certificate bearing not only that he has ven regular attendance, but also that he has duly performed the work the class.

XII. It is competent to the Examiners for the degree of Bachelor Science to report that a candidate has passed with special distinction one or more of the subjects professed by him: and in such a case diploma shall be given setting forth the subjects in respect of which e degree has been granted, and the subject or subjects in which special stinction has been obtained.

Degree in Applied Science.

XIII. Degrees in Applied Science may be instituted and conferred according to regulations to be laid down in special Ordinances applicable to each University by the Commissioners under the Universities (Scotland) Act, 1889; or after the expiry of their powers by the University Court in each University.

XIV. The provisions of Sections II. to VIII. of this Ordinance inclusive, in so far as they relate to the Preliminary and First Science Examinations, shall be applicable in all respects to degrees in Applied Science instituted as aforesaid, except where special provision is made to the contrary in the special Ordinances aforesaid.

Doctorate of Science.

XV. Graduates of any University who have held the degree of Bachelor of Science for a term of five years, may offer themselves for the degree of Doctor of Science in the same University.

XVI. A candidate for the Degree of Doctor of Science shall present a thesis or a published memoir or work[1] to be approved by the Senatus (on the recommendation of the Faculty of Science when duly constituted): Provided that, if required by the Senatus, the candidate shall also be bound to pass such an examination as may from time to time be determined. [This examination is to be conducted by Examiners appointed under Ordinance No. 62, Section X. See page 283.]

The thesis shall be a record of original research undertaken by the candidate, and shall be accompanied by a declaration, signed by him, that the work has been done and the thesis composed by himself.[2]

General.

XVII. A student who, at the time when this ordinance shall come into operation, shall have completed a part of his course of study with a view to graduation in Science in any of the Scottish Universities under regulations in force at the time in such University, and shall thereafter complete his course of study and pass the necessary examinations in conformity with such regulations,[3] or with the provisions of this ordinance, may become a candidate for the Degree of Bachelor of Science.

XVIII. The Degrees of Bachelor and Doctor of Science shall in no case be conferred on persons who have not complied with the conditions hereinbefore set forth, and shall not be conferred *honoris causa tantum*.

XIX. This ordinance came into force on 1st October, 1892.

---

[1] The Thesis must be lodged on or before 8th January.

[2] Each successful Candidate for the Degree of D.Sc. is required to furnish to the University a certain number of copies of his Thesis, either printed or satisfactorily multiplied from a type-written copy, the number of copies in each case to be fixed by the Senate.

[3] Students who began their course previous to 1890 may qualify themselves for the Degree of B.Sc. under the old regulations, which are given in the *University Calendar* for 1884-85; those who began in 1890, or 1891, or 1892 may qualify under the regulations contained in the *Calendar* for 1892-93.

OUTLINE OF EXAMINATIONS FOR B.SC. IN PURE SCIENCE.

First Examination.

MATHEMATICS—see p. 238. ZOOLOGY—see p. 239.

BOTANY—see p. 239. NATURAL PHILOSOPHY—see p. 238.

CHEMISTRY—see p. 239.

Final Examination.

MATHEMATICS—see p. 245 (Honours in Arts).

NATURAL PHILOSOPHY—see p. 245 (Honours in Arts).

ASTRONOMY.

The examination is partly written and partly practical. In the written examination the candidate has to show thorough knowledge of Spherical Astronomy as treated in the Junior course of the Professor's lectures and of Popular Astronomy, and comprehension of the principles developed in the Senior course of lectures on Celestial Dynamics. The practical examination embraces calculation of the ephemeris of a planet (which can be made at any time at home), and the determination of time and latitude by transit instrument and sextant. Also see page 95.

CHEMISTRY.

The examination is partly written and oral, and partly practical. Principles and Theories of Chemistry; general inorganic and organic Chemistry; Elements of metallurgical and physical Chemistry. The practical examination embraces inorganic quantitative analysis, physical determinations such as molecular weight, organic analysis and preparations.

Books recommended:—Bloxam, *Chemistry*; or Thorpe, *Inorganic Chemistry*; or Richter, *Inorganic Chemistry*; Perkin & Kipping, *Organic Chemistry*; and Gatterman, *Practical Methods of Organic Chemistry*; Roberts-Austen, *Introduction to Metallurgy*; Walker, *Introduction to Physical Chemistry*.

HUMAN ANATOMY.

In the written examination the same paper is set for all candidates vhether of Medicine or Science. But the oral examination for candidates n Science is distinct. The candidate is required to show knowledge of Iuman Anatomy, systematic, topographic, microscopic and embryoogical, and of Physical Anthropology, especially the racial characters f skulls, but is not examined on the applications of Anatomy to Iedicine and Surgery.

PHYSIOLOGY.

Candidates for the final B.Sc. in Physiology will be expected to show a sound knowledge of General Physiology, and in addition a candidate must specialise on one or more of the following branches of the subject:

(1) Physiological Chemistry. (2) Digestion and Metabolism. (3) Circulation and Respiration. (4) The Neuro-muscular System. (5) The Special Senses and Experimental Psychology. (6) Histology. The Professor should be consulted as to the books to be read upon each branch of the subject.

Candidates are expected to have a full knowledge of the special department chosen.

The Examination consists of written papers and of practical and oral examinations. The duly attested laboratory note-books of the candidate and any records of original work presented will be considered.

The practical examination will embrace (*a*) Physiological Chemistry, (*b*) Histology, and (*c*) Experimental work on General Physiology, such as is overtaken in the Advanced Practical Class, and will have special reference to the particular branch of the subject selected by the candidate.

GEOLOGY.

Candidates for the final B.Sc. in Geology will be required to show somewhat fuller knowledge of the subjects enumerated at p. 239, and and in addition a more advanced knowledge of the principles and methods of petrography; the methods of palaeontology, as illustrated by the study of one special group of fossils; the stratigraphy of Scotland with especial reference to Western Scotland and a knowledge of the principles of mining geology, including the study of ores and the chief economic mineral deposits, theories of Ore Deposition, the classification of ores, and the characters of some leading mining fields.

The essential laboratory text-book is *Cole's Aids in Practical Geology*, but candidates are expected to have read selected chapters from advanced text-books, general treatises and special memoirs, of which a list is supplied at the beginning of each session.

ZOOLOGY, INCLUDING COMPARATIVE ANATOMY.

As "Principal Subject."

Candidates are expected to show a general knowledge of the classification of the Animal Kingdom and of the structural, developmental, and other features characteristic of its subdivisions.

The Examination is such as to test the general attainments of the candidate in Zoology while special stress is laid on such parts of the subject as have been dealt with in the advanced courses of instruction during the preceding two years.

There is a Practical Examination, part of which is *viva voce*, in which in addition to their general knowledge of the subject candidates are expected to show skill in dissection and other methods of laboratory technique.

Candidates will also be expected to show a knowledge of the more general problems of Zoology, *e.g.* Evolutionary Theory, the principles of Zoogeography, the main data regarding the processes of maturation and conjugation of the germ cells, etc. Special lectures will be arranged so far as possible to deal with such general portions of the subject.

As a "Subsidiary Subject."

In addition to an elementary knowledge of the subject generally, candidates are expected to display knowledge on an Honours standard of some restricted part of the subject, chosen with due regard to the nature of the Candidate's principal subject and after consultation with the Professors concerned.

The following text-books are recommended in addition to those used by the elementary class:—

Text-book of Zoology by A. Sedgwick. *Comparative Anatomy of Vertebrates* by Wiedersheim.

For reference in regard to special groups, Korschelt & Heider's *Invertebrate Embryology*, Hertwig's *Embryology of Vertebrates*, *The Cambridge Natural History*, Lankester's *Zoology*.

Students are further recommended to read Weismann's *Evolution Theory*, and Darwin's *Origin of Species*.

BOTANY.

Candidates for the Final B.Sc. Examination in Botany will be expected to show an adequate knowledge of the External Morphology, Anatomy, and Physiology of Plants, and of the leading features in their Geological History. Also a general knowledge of the leading types, and classification of the main groups of Algæ, Fungi, Bryophyta, and Pteridophyta.

The syllabus of work in the course for B.Sc. (from April 1908 till further notice) may be obtained at the Matriculation Office.

The following books are suggested:—As a general text-book, Strasburger's *Textbook of Botany*, 3rd Engl. Ed. For more detailed information, especially of the Algæ and Fungi, Warming's *Systematic Botany*. For use in the garden, especially for flowering plants, Willis' *Flowering Plants and Ferns*, 2nd Edn. For field work, Hooker's *Students' Flora of the British Islands*.

The reading of Candidates should also extend to more special treatises; such as Scott's *Studies in Fossil Botany*; Schimper's *Plant Geography*; Bower's *Origin of a Land Flora*; Campbell's *Mosses and Ferns*, etc., as well as to original papers, such as are referred to in the bibliography of Strasburger's *Textbook*.

There will be two three-hour papers, and two practical examinations [three hours each].

Candidates will also be examined orally.

TABLE OF EXAMINATIONS FOR DEGREE OF B.SC. IN PURE SCIENCE DURING SESSION 1909-10.

Names to be given in and Fees paid to Assistant-Clerk[1] (Matriculation Office). Date.[2]	FEE.	Subjects of Examination.	Dates of Written Examinations and Hours at which the different Papers will be set. The Oral Examinations in Science follow the Written at dates to be arranged.	
			September—October, 1909.	March, 1910.
7th September, 1909, or 7th March, 1910.	£1 1s. for Each Subject until £6 6s. shall have been paid.	Math. (Ord. & Hon.),	Fri., 24th Sept., 9—12 noon & 2—5 p.m.	Fri., 18th Mar., 9—12 noon & 2—5 p.m.
		Astronomy (1st Paper),	Saturday, 25th Sept., 9—12 noon.	Saturday, 19th Mar., 9—12 noon.
		Botany,	Monday, 27th Sept., 9—12 noon.	Tuesday, 22nd March, 9—12 noon.
		Chemistry,	Do., do., 2—5 p.m.	Monday, 21st March, 2—5 p.m.
		Anatomy,	Tuesday, 28th Sept., 9—11 a.m.	Tuesday, 22nd March, 9—11 a.m.
		Zoology,	Do., do., 9—12 noon.	Monday, 21st March, 9—12 noon.
		Physiology,	Do., do., 12—3 p.m.	Tuesday, 22nd March, 12—3 p.m.
		Mathematics (Hon.),	Wednesday, 29th Sept., 9—11 a.m.	Monday, 21st March, 9—11 a.m.
		Astronomy (2nd Paper),	Do., do., 2—5 p.m.	Tuesday, 22nd March, 2—5 p.m.
		Nat. Phil. (Ord. & Hon.),	Sat., 2nd Oct., 9—12 noon & 2—5 p.m.	Thurs., 24th Mar., 9—12 noon & 2—5 p.m.
		Nat. Philosophy (Hon.),	Monday, 4th Oct., 9—12 noon.	Friday, 25th March, 9—12 noon.
		Geology (1st Paper),	Tuesday, 5th Oct., 9—12 noon.	Saturday, 26th March 9—12 noon.
		Geology (2nd Paper),	Wednesday, 6th Oct., 9—11 a.m.	Monday, 28th March, 9—11 a.m.
		Geology (Practical),	Do., do., 2—5 p.m.	Saturday, 26th March, 2—5 p.m.

---

[1] For Women students, Miss Melville, Queen Margaret College.

[2] When Names are not given in and Fees are not paid on or before the stated dates, a late Entry Fee of Ten Shillings must be paid before the candidate can be admitted to examination. A candidate is not held to be entered for the examination until his name is entered, the fee paid, and all the necessary certificates, etc., lodged. Late Entry Fees will not be accepted less than three days before the date of Examination.

For Dates in regard to Science Preliminary Examination see page 217.

Degrees in Science in Engineering.

The following are the provisions of Ordinance No. 23, Glasgow No. 2:—

I. Two Degrees in Science in Engineering may be conferred by the University of Glasgow, viz., Bachelor of Science in Engineering[1] and Doctor of Science in Engineering.

II. Every candidate for the degree of Bachelor of Science in Engineering must pass the Preliminary Examination prescribed by the Arts Ordinance (Regulations for degrees in Arts), and the conditions with respect thereto imposed by the said ordinance (see pp. 212—220 and 227, 228) are applicable in all respects to this ordinance except as follows:—(1) French or German may be substituted for Latin or Greek [see also foot of page 213]; (2) *Mathematics must be passed on the higher standard*; (3) a degree in Arts (not being a degree *honoris causa tantum*) in any of the Universities of the United Kingdom, or in any Colonial or Foreign University specially recognised for the purpose by the University Court after consultation with the Senatus Academicus, exempts from the Preliminary Examination; (4) the *Preliminary Examination must be passed before the candidate presents himself for any part of the First Science Examination, but not necessarily before the candidate enters on his curriculum.*

III. Candidates must in the course of not less than three academical years attend at least the nine courses of instruction prescribed under Section IX.

IV. (1) Five of the nine courses must be taken in this University. One of these courses must be a course in Engineering.

(2) Four may be taken in other Universities or institutions approved by the University Court, or under teachers recognised by the University Court for purposes of graduation in Science in Engineering: Provided that the fees for attendance at an approved institution in Glasgow or under a recognised teacher there shall not be less than the fees exigible for the corresponding courses in the University of Glasgow.

V. It is competent to the University Court to admit to the examinations for the degree of Bachelor of Science in Engineering, and to graduation, any candidate who presents the diploma of the Glasgow and West of Scotland Technical College, and who has passed the Preliminary Examination hereinbefore appointed: Provided that before such candidate shall be admitted to the Final Science Examination prescribed under Section XI. hereof:—

---

[1] By order of the Council of the Institution of Civil Engineers the possession of the Degree of B.Sc. in Engineering exempts candidates applying for election into the Institution as Associate Members from passing the examination prescribed by the Council, provided that the candidate's Preliminary Examination includes Dynamics and has been passed in the University, at one sitting, before entry upon any course of study which forms part of the degree course.

(1) He shall, after having received the said diploma, have attended in this University at least three full courses, during at least one academical year; and of these courses one at least shall be in Engineering, *including Laboratory Practice.*[1]

(2) He shall, after having received the said diploma, have attended in this University such courses as will, along with the classes taken at the said College for the said diploma, be equivalent to the whole courses for the curriculum hereinafter instituted.

On 15th October, 1908, the Senate adopted a recommendation of the Faculty of Science that candidates under this section should be required to take a course of Physical Laboratory either in the University or the equivalent course in the Glasgow and West of Scotland Technical College.

VI. The University Court may make regulations to enable candidates not matriculated students of the University availing themselves of the permission to attend Lectures at approved institutions or by recognised teachers in Glasgow, to obtain on payment of a fee not exceeding in amount the Matriculation Fee paid by the students of the University, a right to the use of the Library of the University.

VII. (1) The Senatus determines from time to time the number of meetings of which a full course in any subject shall consist, and reports its determination to the University Court for its approval.

(2) The Senatus, with the approval of the University Court, may sanction half courses of not less than half the number of meetings which constitute a full course in the subject; and two half courses shall be held to be equivalent to a full course in such cases as the Senatus, with the approval of the University Court, may determine, and under such regulations as may from time to time be made for that purpose.

(3) It is the duty of the Professors and Lecturers annually at the end of each winter session to submit to the Senatus a scheme specifying what proportion of the courses shall be devoted to lectures, practical demonstrations, examinations, and tutorial work respectively. The Senatus shall transmit such scheme, with such observations as it may think fit to make thereon, to the University Court for its approval.

(4) It is the duty of the Professors and Lecturers annually at the end of each winter session to submit to the Faculty of Science, for its consideration, a syllabus of the subjects and books proposed for the work of their classes during the next academical year. The Faculty of Science shall transmit such syllabus, with such observations as it may think fit to make thereon, to the Senatus for its approval.

VIII. The provisions of the preceding section do not apply to approved institutions or recognised teachers outside Glasgow; but the University Court shall not grant or continue recognition to any institutions or teachers unless it shall be satisfied that their courses of instruction are equivalent to the courses sanctioned in the University of Glasgow.

---

[1] See first note on page 261.

IX. The subjects of study[1] shall be as follows:—

1. Mathematics, including Analytical Geometry, and Differential and Integral Calculus.
2. Natural Philosophy, including Applied Higher Mathematics.
3. Chemistry.
4. A course in the Physical Laboratory,[2] or in the Chemical Laboratory, or of Practical Chemistry.

and either:—

5, 6. Two courses in Engineering,[2] including Laboratory Practice.

7, 8. Two courses of practical work in Drawing.

9. A course in one of the following:—

- (*a*) Astronomy and Geodesy.
- (*b*) Geology and Mineralogy.
- (*c*) Naval Architecture.
- (*d*) Engineering Laboratory, Mechanical or Electrical (Special Course). [This laboratory course cannot be taken concurrently with either of the laboratory courses specified under 5, 6.]
- (*e*) Electricity—Pure and Applied.
- (*f*) *Mining Engineering* (Class I. or Class II.).
- (*g*) *Metallurgical Chemistry.*
- (*h*) *Any half-course of lectures in Engineering not already taken under* 5, 6.

or:—

5, 6. Two courses in Naval Architecture with Marine Engineering.

7, 8. Two courses of practical work in Ship and Engineering Drawing.

9. A course in Engineering, including Laboratory Practice.

Provided that during the three years immediately subsequent to the date on which this ordinance shall come into force, the courses in Engineering herein prescribed shall not necessarily include Laboratory Practice.

IXa.[3] *The following is the curriculum for the Degree of B.Sc. in Mining Engineering:—*

---

[1] The words in *italics* in this and other sections are modifications which the University Court on representations by the Senate, made by virtue of the power conferred upon the Court by Section XIV. of this Ordinance.

[2] The Physical Laboratory must have been taken previously by those who take Electrical Engineering under 5, 6.

[3] This curriculum, having been arranged by the Senate, was sanctioned by the University Court on 18th June, 1903, in virtue of the power belonging to the Court according to Section XIV. of this Ordinance.

First Year: *Mathematics* (*Ordinary*); *Natural Philosophy* (*Ordinary*); *Chemistry; Chemical Laboratory; Mining, Class I.* (*50 meetings*).

Second Year: *Engineering, Class I.; Engineering, Class II. or III.; Mining, Class II.* (*50 meetings*); *Drawing; Geology and Mineralogy.*

Third Year: *Electrical Engineering, Class I.; Metallurgy; Metallurgical Laboratory; Mining, Class III.* (*25 meetings*); *Mining* (*Practical*), *Class IV.* (*25 meetings*);[1] *Engineering Laboratory; Mining Geology* (*50 meetings*).[2]

Provided that practical work in a mine shall be required of every candidate for the Degree of B.Sc. in Mining Engineering to such an extent and under such regulations as the Senate, with the approval of the University Court, may from time to time appoint.[3]

Under this proviso, the following regulations, proposed by the Senate, were approved by the University Court:

1. Practical work in a mine shall be required for two periods of three months each, and the candidate must not be under sixteen years of age at the time of commencing this practical work.

2. The candidate must produce evidence satisfactory to the Senate that he has fulfilled this requirement.[4]

X. (1) There shall be a First Science Examination[5] in subjects 1, 2, 3, and 4 of the section immediately preceding.

(2) The examination in (1) Mathematics and (2) Natural Philosophy shall include the higher branches of Mathematics specified under Mathematics and the higher Mathematics included under Natural Philosophy in the section immediately preceding;[5] but it shall be optional to candidates to pass the same examination in either or both of these subjects as that required for the Ordinary Degree of Master of Arts: Provided that in that case they shall be required before graduation to pass a subsequent examination in the remainder of the subject or subjects.

(3) Candidates may present themselves in any one or more of the subjects of the First Science Examination at any examination held after they have attended a full course in the subject or subjects professed.

---

[1] These six words were added by the University Court on 9th April, 1908.

[2] The last four words were added by the University Court on 11th April, 1907.

[3] This amending paragraph was added by the University Court on 21st July, 1904.

[4] The Secretary of State for the Home Department, on 29th September, 1904, approved of the University of Glasgow in respect of the Degree of B.Sc. in Mining Engineering and of the Certificate of Proficiency in Mining Engineering for the purposes of the Coal Mines Regulation Act (1887) Amendment Act, 1903.

[5] The Senate has authorised the Examiners in Mathematics and Natural Philosophy to return as having passed in the elementary part of either or both of these subjects any candidate who has attempted the examination in the higher branches of either or both and has failed to pass, provided that in the opinion of the Examiners the candidate has attained a standard equivalent to that required for the ordinary Degree of M.A.

XI. (1) There shall be a Final Science Examination[1] in subjects 5, 6, 7, 8, and 9 of Section IX. hereof; and, if required, in the higher branches of Mathematics as provided in Section X., Sub-section 2 hereof.

(2) Candidates may present themselves in any one or more of these subjects at any examination held after they have passed the First Science Examination and have attended the required courses in the subject or subjects professed: Provided that for this purpose subjects 5, 6, 7, and 8, specified in Section IX. hereof shall be deemed one subject.

XIA.[2] *The following is the Scheme of Examinations for the Degree of B.Sc. in Mining Engineering:—*

(1) *There shall be a First Science Examination in Mathematics (Ordinary), Natural Philosophy (Ordinary), Chemistry, and Chemical Laboratory, and a Final Science Examination in all the other subjects.*

(2) *Candidates may present themselves in any one or more of the subjects of the First Science Examination at any examination held after they have attended a full course in the subject or subjects professed; and in any one or more of the subjects of the Final Science Examination at any examination held after they have passed the First Science Examination, and have attended the required course or courses in the subject or subjects professed: provided that for this purpose Mining I., II., and III. shall be deemed one subject.*

The examination in the course of "Geology and Mineralogy" taken in the second year will include one written paper and a paper of practical questions; the examination in "Mining Geology" dealing with the course taken in the third year will include one written paper and a paper of practical questions.

XII. A candidate for the degree of Bachelor of Science in Engineering shall not be deemed to have attended a class as part of the curriculum for that degree who does not present a certificate bearing not only that he has given regular attendance, but also that he has duly performed the work of the class.

XIII. It is competent to the Examiners for the degree of Bachelor of Science in Engineering to report that a candidate has passed with special distinction in one or more of the subjects professed by him; and in such a case a diploma shall be given setting forth the subjects in respect of which the degree has been granted, and the subject or subjects in which special distinction has been obtained.

XIV. It is competent to the University Court of the University of Glasgow to modify from time to time the provisions as to curriculum hereinbefore contained, in case such modification shall be rendered desirable by the development of Engineering science, or in consequence of further provisions having been made within or without the University for the study of any special branch of the said Science: Provided that in no case shall the number of full courses of study required be less than the number required for the Degree of Bachelor of Science in Pure Science, as specified in Ordinance No. 12.

---

[1] This examination includes practical work in the subjects admitting of, or requiring it: Provided that, in the case of Engineering Students, a practical examination shall be passed in Chemistry or Physics according as the Chemical or the Physical Laboratory Course has been chosen as part of the qualifying curriculum.

[2] This amending section was added by the University Court on 8th April, 1909.

Doctorate of Science in Engineering.

XV. Graduates of the University of Glasgow who have held the degree of Bachelor of Science in Engineering for a term of five years, may offer themselves for the degree of Doctor of Science in Engineering in the said University.

XVI. A candidate for the Degree of Doctor of Science in Engineering shall present a thesis or a published memoir or work[1] to be approved by the Senatus (on the recommendation of the Faculty of Science when duly constituted): Provided that, if required by the Senatus, the candidate shall be bound to pass such an examination as may from time to time be determined.

The thesis shall be a record of original research undertaken by the candidate, or of important engineering work designed by himself, and actually carried out, and shall be accompanied by a declaration, signed by him, that these conditions have been satisfied.[2]

General.

XVII. Candidates who produce certificates that they have satisfied all the conditions prescribed by this ordinance, and who have passed the necessary examinations, shall be entitled to receive the degrees of Bachelor of Science in Engineering and Doctor of Science in Engineering, as the case may be, on payment of the fees required.

XVIII. A student who, at the time when this ordinance shall come into operation, shall have completed a part of his course of study with a view to graduation in Science in Engineering in the University of Glasgow, under regulations in force at the time therein, and shall thereafter complete his course of study and pass the necessary examinations in conformity with such regulations,[3] or with the provisions of this Ordinance, may become a candidate for the degree of Bachelor of Science in Engineering.

XIX. The degrees of Bachelor and Doctor of Science in Engineering shall in no case be conferred on persons who have not complied with the conditions hereinbefore set forth, and shall not be conferred *honoris causâ tantum*.

XX. This Ordinance came into force from and after the date on which it was approved by Her Majesty in Council, viz., 26th June, 1893.

---

[1] The Thesis must be lodged on or before 8th January.

[2] See second note on page 254.

[3] Students who began their course previous to 1890 may qualify themselves for the Degree of B.Sc. under the old regulations, which are given in the *University Calendar* for 1884-85; those who began in 1890, or 1891, or 1892 may qualify under the regulations contained in the *Calendar* for 1892-93.

TABLE OF EXAMINATIONS FOR DEGREE OF B.SC. IN ENGINEERING DURING SESSION 1909-10.

Names to be given in and Fees paid to Assistant-Clerk (Matriculation Office). Date.[1]	FEE.	Subjects of Examination.	Dates of Written Examinations and Hours at which the different Papers will be set. The Oral Examinations in Science follow the Written at dates to be arranged.	
			September—October, 1909.	March, 1910.
7th September, 1909, or 7th March, 1910.	£1 1s. for Each Subject until £6 6s. shall have been paid.	Mathematics, - - -	Fri., 24th Sept., 9—12 noon & 2—5 p.m.	Fri., 18th Mar., 9—12 noon & 2—5 p.m.
		Mathematics (Special for Engineering), - -	Do., do., 9—12 noon.	Do., do., 9—12 noon.
		Astronomy, - - -	Saturday, 25th Sept., 9—12 noon.	Saturday, 19th March, 9—12 noon.
		Chemistry, - - -	Monday, 27th Sept., 2—5 p.m.	Monday, 21st March, 2—5 p.m.
		Engineering Laboratory,	Wednesday, 29th Sept., 9—12 noon.	Do., do., 9—12 noon.
		Engin. Lab. (Special), -	Do., do., 2—5 p.m.	Do., do., 2—5 p.m.
		Electrical Engineering I.,	Do., do., 2—5 p.m.	Do., do., 2—5 p.m.
		Astronomy, - - -	Do., do., 2—5 p.m.	Tue., 22nd March, 2—5 p.m.
		Naval Architecture, -	Thurs., 30th Sept., 9—11 a.m.	Do., do., 9—11 a.m.
		Engineering Drawing, -	Do., do., 9—12 noon & 2—5 p.m.	Do., do., 9—12 noon & 2—5 p.m.
		Ship Drawing, etc., -	Do., do., 2—5 p.m.	Do., do., 2—5 p.m.
		Engineering, -	Fri., 1st Oct., 9—11 a.m. & 3—5 p.m.	Wed., 23rd Mar., 9—11 a.m. & 3—5 p.m.
		Electrical Engineering II.	Do., do., 3—5 p.m.	Do., do., 3—5 p.m.
		Natural Philosophy,	Sat., 2nd Oct., 9—12 noon & 2—5 p.m.	Thur., 24th Mar., 9—12 noon & 2—5 p.m.
		Nat. Phil. (Special for Engineering),	Do., do., 9—12 noon	Do., do., 9—12 noon
		Mining III., - - -	Do., do., 2—4 p.m.	Wednesday, 23rd March, 12—2 p.m.
		Engineering, - -	Mon., 4th Oct., 9—11 a.m. & 2—5 p.m.	Fri., 25th March, 9—11 a.m. & 2—5 p.m.
		Mining II., - - -	Do., do., 9—12 noon.	Thursday, 24th March, 9—12 noon.
		Mining I., - - -	Do., do., 2—5 p.m.	Friday, 25th March, 2—5 p.m.
		Geology, Paper I., - -	Tuesday, 5th Oct., 9—12 noon.	Saturday, 26th March, 9—12 noon.
		Metallurgical Chemistry,	Do., do., 2—5 p.m.	Thursday, 24th March, 2—5 p.m.
		Geology, Paper II., -	Wednesday, 6th Oct., 9—11 a.m.	Monday, 28th March, 9—11 a.m.
		Geology (Practical), -	Do., do., 2—5 p.m.	Saturday, 26th March, 2—5 p.m.
		Physical Laboratory, -	Thursday, 7th Oct., 9 a.m.	Tuesday, 29th March, 9 a.m.
		Electricity (Pure and Applied), - -	Do., do., 9—12 noon	Do., do., 9—12 noon.

[1] When names are not given in and Fees are not paid on or before the stated dates, a late Entry Fee of Ten Shillings must be paid before the candidate can be admitted to examination. A candidate is not held to be entered for the examination until his name is entered, the fee paid, and all the necessary certificates, etc., lodged. Late Entry Fees will not be accepted less than three days before the date of Examination.

For Dates of the Preliminary Examinations see page 217.

CERTIFICATES OF PROFICIENCY IN ENGINEERING SCIENCE.

Certificates of Proficiency in Engineering Science will be granted to students who shall have gone through the following course of study, practical work, and examinations, to the satisfaction of the Board of Examiners:—

1. Mathematics, including Analytical Geometry and Differential and Integral Calculus.
2. Natural Philosophy—the work of the Ordinary Class.
3. Chemistry.

And either:—

4, 5. Two courses in Engineering, including Laboratory Practice.
6, 7. Two courses of practical work in Drawing.
8. A course in one of the following:—
   (*a*) Astronomy and Geodesy.
   (*b*) Geology and Mineralogy.
   (*c*) Naval Architecture.
   (*d*) Engineering Laboratory, Mechanical or Electrical (special course). [This laboratory course cannot be taken concurrently with either of the laboratory courses specified under 4, 5.]
   (*e*) Electricity—Pure and Applied.
   (*f*) Mining Engineering (Class I. or Class II.).
   (*g*) Metallurgical Chemistry.
   (*h*) Any half course of lectures in Engineering not already taken under 4, 5.

Or:—

4, 5. Two courses in Naval Architecture with Marine Engineering.
6, 7. Two courses of practical work in Ship and Engineering Drawing.
8. A course in Engineering, including Laboratory Practice.

Certificates of Proficiency in Mining Engineering will be granted to students who shall have gone through the following course of study, practical work, and examinations, to the satisfaction of the Board of Examiners:—

FIRST YEAR: Mathematics (Ordinary); Natural Philosophy (Ordinary); Chemistry; Chemical Laboratory; Mining, Class I. (50 meetings).

SECOND YEAR: Engineering, Class I.; Engineering, Class II. or III.; Mining, Class II. (50 meetings); Drawing; Geology and Mineralogy.

THIRD YEAR: Electrical Engineering, Class I.; Metallurgy; Metallurgical Laboratory; Mining, Class III. (25 meetings); Mining (Practical), Class IV. (25 meetings); Engineering Laboratory; Mining Geology (50 meetings).

No candidate is admitted to the special examination for either certificate, in any department, till he has given regular attendance upon, and duly performed the work of the prescribed course of study in that department.

Candidates are not required to pass the Preliminary Examination.

Degree in Science in Agriculture

The regulations for the Degree of Bachelor of Science in Agriculture are contained in Ordinance No. 134 of the Universities Commission (1889), and are as follows:—

I. A degree of Bachelor of Science in Agriculture may be conferred by the University of Glasgow.

II. Every candidate for the degree of Bachelor of Science in Agriculture must pass the Preliminary Examination prescribed by the Arts Ordinance (Regulations for Degrees in Arts), and the conditions with respect thereto imposed by the said Ordinance (see pp. 212–220 and pp. 227, 228) shall be applicable in all respects to this Ordinance except as follows:—(1) French or German may be substituted for Latin or Greek; (2) Mathematics shall be passed on the higher standard;[1] (3) a degree in Arts (not being a degree *honoris causâ tantum*) in any of the Universities of the United Kingdom, or in any Colonial or Foreign University specially recognised for the purpose by the University Court after consultation with the Senatus Academicus, shall exempt from the Preliminary Examination; (4) the Preliminary Examination must be passed before the candidate presents himself for any part of the First Science Examination, but not necessarily before the candidate enters on his curriculum.

III. (1) Candidates must in the course of not less than three Academical years, within the meaning of the Ordinance hereinbefore first mentioned, attend at least twelve courses of instruction, in the subjects specified in Section VIII. of this Ordinance.

(2) It shall be the duty of the Senatus to determine from time to time which of the said courses shall be full courses and which shall be half courses respectively, and also to determine the number of meetings of which such full courses and half courses respectively shall consist, and to report its determination to the University Court for its approval.

Under this subsection the Senate, with the approval of the University Court, has determined that of the subjects specified in Section VIII. of this Ordinance, Nos. 1, 2, 3, 4, 5, 6 and 10 shall be taught in full courses, and Nos. 7, 8, 9, 11 (*a*), 11 (*b*), 11 (*c*) and 12 in half courses, and that the number of meetings shall be those inserted in square brackets in Section VIII. opposite the several subjects.

IV. (1) Five full courses or their equivalent (counting two half courses as one full course) must be taken in the University of Glasgow. The course in Agriculture and Rural Economy must also be taken in the University of Glasgow, if instruction in the said subjects be provided in the University, or in the West of Scotland Agricultural

---

[1] Candidates for the Degree of B.Sc. in Agriculture may offer themselves for examination in Mathematics on the intermediate instead of on the higher standard; provided that in addition to the ancient or modern language already taken they also offer themselves for examination in a modern language as a fifth subject, such further examination to be on the standard prescribed by the Joint Board for the Medical Preliminary.

College[1]: Provided always that that course in the said College shall be accepted as equivalent to a course in the University, subject to the following conditions:—

(*a*) The Senatus Academicus shall be represented on the governing body of the Agricultural College.[1]

(*b*) All future appointments to the Chair of Agriculture in the Agricultural College[1] shall be vested in a Joint Committee, consisting of three members of the University Court and of three members of the governing body of the Agricultural College.[1]

(2) The remainder of the said courses may be taken in other Universities or Institutions approved by the University Court, or under teachers recognised by the University Court for purposes of graduation in Science in Agriculture: Provided that the fees for attendance at an approved Institution in Glasgow or under a recognised teacher there shall not be less than the fees exigible for the corresponding courses in the University of Glasgow.

(3) Residence and practical work at a farm shall be required of each candidate to such an extent and under such regulations as the Senatus, with the approval of the University Court, may from time to time appoint.

Under this subsection the following regulations have been made by the Senate, with the approval of the University Court.

1. Residence and practical work at a farm for twelve months shall be required, and the candidate must not be under sixteen years of age when he commences the residence.

2. The residence must be for twelve consecutive months, except in special cases in which the Senate may grant recognition of residence during two shorter periods amounting together to at least twelve months.

3. The candidate must produce evidence, satisfactory to the Senate, that he has fulfilled these regulations.

V. All students availing themselves of the permission to attend the lectures of the teachers in the various departments of Agriculture in the West of Scotland Agricultural College, or of teachers in other approved institutions in Glasgow, or of other recognised teachers in Glasgow, must, at the commencement of each year of such attendance, enrol their names in a book to be kept in the University for that purpose, paying a fee of the same amount as the matriculation fee paid by the students of the University, and having in respect of such payment a right to the use of the Library of the University.

VI. (1) It shall be the duty of the Professors and Lecturers annually, at the end of each winter session, to submit to the Senatus a scheme specifying what proportion of the courses shall be devoted to lectures, practical demonstrations, examinations, and tutorial work respectively. The Senatus shall transmit such scheme, with such observations as it may think fit to make thereon, to the University Court for its approval.

---

[1] An ordinance was framed by the University Court on 6th August, 1900, and approved by His Majesty in Council on 24th July, 1901, which substituted the West of Scotland Agricultural College for the Glasgow and West of Scotland Technical College.

(2) It shall be the duty of the Professors and Lecturers annually, at the end of each winter session, to submit to the Faculty of Science for its consideration a syllabus of the subjects and books proposed for the work of their classes during the next Academical year. The Faculty of Science shall transmit such syllabus, with such observations as it may think fit to make thereon, to the Senatus for its approval.

VII. The provisions of the immediately preceding section shall not apply to approved institutions or recognised teachers outside Glasgow; but the University Court shall not grant or continue recognition to any institutions or teachers unless it shall be satisfied that their courses of instruction are equivalent to the courses sanctioned in the University of Glasgow, where such exist.

VIII. The subjects of study shall be as follows:—

1. Mathematics [100 meetings].
    or Biology, *i.e.*,
        Zoology [100 meetings, viz., 50 lectures and 50 practical].
        and
        Botany, [100 meetings, viz., 50 lectures and 50 practical].
2. Natural Philosophy [100 meetings].
3. Chemistry [100 meetings and three months in Chemical Laboratory].
4. Agriculture and Rural Economy [100 meetings].
5. Agricultural Chemistry [100 meetings, viz., 50 lectures and 50 practical].
6. Geology [80 meetings, including 50 lectures and 28 practical demonstrations].
7. Veterinary Hygiene [50 meetings].
8. Agricultural Botany [50 meetings].
9. Agricultural Entomology [25 meetings].
10. Economic Science as applied to Agriculture [100 meetings].[1]
11. One of the following:—
    (*a*) Forestry [50 meetings].
    (*b*) Experimental Physics [50 meetings].
    (*c*) Engineering [50 meetings].
12. Engineering Field Work [50 meetings].

---

[1] The Glasgow and West of Scotland Technical College contemplates the institution of a special class for the teaching of this subject in 50 meetings. Until this special class shall be instituted candidates are required to attend the ordinary class of Political Economy [100 meetings]. After both classes are available students will have the option of taking either. In the examination prescribed under Section X. every candidate shall be required to work a paper of questions on Economic Science as applied to Agriculture.

IX. (1) There shall be a First Science Examination in the three following subjects—viz., (1) Mathematics or Biology (*i.e.*, Zoology and Botany); (2) Natural Philosophy; (3) Chemistry.

(2) The examination in all these subjects shall be the same as the examination in these subjects for the degree of Bachelor of Science, under the provisions of Ordinance No. 12 [General, No. 7—Regulations for Degrees in Science].

(3) Candidates may present themselves in any one or more of the subjects of the First Science Examination at any examination held after they have attended a full course in the subject or subjects professed.

X. (1) There shall be a Final Science Examination[1] in the remaining subjects (4 to 12 inclusive) specified in Section VIII. hereof.

(2) Candidates may present themselves in any one or more of these subjects at any examination held after they have passed the whole of the subjects comprised in the First Science Examination, and have attended the required courses in the subjects professed.

XI. A candidate for the degree of Bachelor of Science in Agriculture shall not be deemed to have attended a class as part of the Curriculum for that degree who does not present a certificate bearing, not only that he has given regular attendance, but also that he has duly performed the work of the class.

XII. The Examiners for the degree of Bachelor of Science in Agriculture shall be the Professors of the subjects in the Curriculum in the University of Glasgow, the Professor of Agriculture in the West of Scotland Agricultural College, and such additional Examiners as the University Court shall see fit to appoint.

General.

XIII. Candidates who produce certificates that they have satisfied all the conditions prescribed by this Ordinance, and who have passed the necessary examinations, shall be entitled to receive the degree of Bachelor of Science in Agriculture, on payment of the fees required.

XIV. The degree of Bachelor of Science in Agriculture shall in no case be conferred on persons who have not complied with the conditions hereinbefore set forth, and shall not be conferred *honoris causâ tantum*.

XV. This ordinance came into force from and after the date on which it was approved by Her Majesty in Council, viz., 13th August, 1895.

---

[1] The examination in Agricultural Botany, Agricultural Entomology, and Experimental Physics, may be practical.

TABLE OF EXAMINATIONS FOR DEGREE OF B.SC. IN AGRICULTURE DURING SESSION 1909-10.

Names to be given in and Fees paid to Assistant-Clerk (Matriculation Office). Date.[1]	FEE.	Subjects of Examination.	Dates of Written Examinations and Hours at which the different Papers will be set. The Oral Examinations in Science follow the Written at dates to be arranged.	
			September—October, 1909.	March, 1910.
7th September, 1909, or 7th March, 1910.	£1 1s. FOR EACH SUBJECT UNTIL £6 6s. SHALL HAVE BEEN PAID.	Mathematics,	Fri., 24th Sept., 9-12 noon & 2—5 p.m.	Fri., 18th March, 9—12 noon & 2—5 p.m.
		Botany,	Mon., 27th Sept., 9—12 noon.	Tues., 22nd March, 9—12 noon.
		Chemistry,	Do., do., 2—5 p.m.	Mon., 21st March, 2—5 p.m.
		Zoology,	Tues., 28th Sept., 9—12 noon.	Do., do., 9—12 noon.
		Engineering Field Work,	Fri., 1st Oct., 3—5 p.m.	Wed., 23rd March, 3—5 p.m.
		Economic Science,	Do., do., 6—9 p.m.	
		Natural Philosophy,	Sat., 2nd Oct., 9—12 noon & 2—5 p.m.	Thurs., 24th Mar., 9—12 noon & 2—5 p.m.
		Agriculture,	Do., do., 9—12 noon.	Do., do., 9—12 noon.
		Agric. Entomology,	Do., do., 2—5 p.m.	Do., do., 2—5 p.m.
		Engineering,	Mon., 4th Oct., 9—11 a.m.	Fri., 25th March, 9—11 a.m.
		Geology,	Tues., 5th Oct., 9—12 noon.	Sat., 26th March, 9—12 noon.
		Veterinary Hygiene,	Do., do., 2—5 p.m.	Fri., 25th March, 2—5 p.m.
		Geology,	Wed., 6th Oct., 9—11 a.m.	Mon., 28th March, 9—11 a.m.
		Geology (Practical),	Do., do., 2—5 p.m.	Sat., 26th March, 2—5 p.m.
		Physical Laboratory,	Thurs., 7th Oct., 9 a.m.	Tues., 29th March, 9 a.m.

[1] When Names are not given in and Fees are not paid on or before the stated dates, a late Entry Fee of Ten Shillings must be paid before the candidate can be admitted to examination. A candidate is not held to be entered for the examination until his name is entered, the fee paid, and all the necessary certificates, etc., lodged. Late Entry Fees will not be accepted less than three days before the date of Examination.

For Dates in regard to Science Preliminary Examination see page 217.

Degrees in Science in Public Health.

The following are the provisions of University Court Ordinance No. vi. (Glasgow, No. 2):—

I. Two degrees in Science in Public Health shall be conferred by the University of Glasgow, viz.: Bachelor of Science in Public Health (B.Sc. Pub. Health) and Doctor of Science in Public Health (D.Sc. Pub. Health).

B.Sc. in Public Health.

II. Candidates for the degree of Bachelor of Science in Public Health must be graduates in Medicine of a University of the United Kingdom, or of some other University recognised for the purpose by the University Court of the University of Glasgow.

III. Candidates must be matriculated for the year in which they appear for examination or graduation.

IV. Candidates shall be admitted to the Degree of Bachelor of Science in Public Health, only after they have fulfilled the following conditions, viz.: they must produce evidence

(1) That, after their graduation in Medicine, they have received practical instruction, including instruction in Chemistry, Bacteriology, and the Pathology of the Diseases of Animals transmissible to man, for at least twenty hours per week during a period of not less than eight months, of which at least five consecutive months must be in the Public Health Laboratory of the University of Glasgow, and the remainder in the foresaid Laboratory, or in a Public Health Laboratory recognised for the purpose by the University Court;

(2) That they have attended either before or after graduation in Medicine, such courses on (*a*) Physics and (*b*) Geology, either in the University of Glasgow or elsewhere, as would qualify for graduation in Science or Arts in the said University; or have attended in said University or any other Scottish University in addition to the course in Physics qualifying for graduation in Medicine, such further course in Physics as the Senatus Academicus, with the approval of the University Court, shall deem necessary, and such a course in Geology extending over not less than three months, as the Senatus with the like approval shall deem sufficient and appropriate.

(3) That after their graduation in Medicine they have attended two separate courses in Public Health, one course dealing with Medicine and consisting of seventy-five meetings of the class, the other with Engineering and consisting of twenty-five meetings of the class, each in its relation to Public Health, in such manner as the Senatus Academicus, with the approval of the University Court, shall determine.

(4) That after their graduation in Medicine they have for six months, three of which must be continuous, practically studied sanitary work under the supervision of:

(*a*) In England and Wales, the Medical Officer of Health of a County or of a single Sanitary District having a population of not less than 50,000, or a Medical Officer of health devoting his whole time to Public Health work; or

(*b*) In Scotland, a Medical Officer of Health of a County or Counties, or of one or more Sanitary Districts having a population of not less than 30,000; or

(*c*) In Ireland, a Medical Superintendent Officer of Health of a District or Districts having a population of not less than 30,000; or

(*d*) A Medical Officer of Health who is also a Teacher in the Department of Public Health of a recognised Medical School.

Half of the above period must be devoted solely to the study of sanitary work as aforesaid; the other half partly to the same study.

(5) That after their graduation in Medicine they have attended during three months the practice of an Hospital for Infectious Diseases in an Hospital at which opportunities are afforded for the study of Methods of Administration, recognised for the purpose by the University Court; and

(6) That they have had three months' instruction in Mensuration and Drawing under a teacher recognised for the purpose by the University Court.

V.[1] Each candidate shall be examined both in writing and orally, and also practically where the nature of the subject admits in the following divisions, viz.: *First*, in (*a*) Public Health Laboratory work, (*b*) Physics, and (*c*) Geology, if an examination in Physics or Geology, as the case may be, qualifying for graduation either in Science or Arts has not previously been passed by the Candidate; *Second*, in (*a*) Sanitation, including reports on dwellings, workshops, hospitals, and sanitary schemes generally, (*b*) Sanitary Law, (*c*) Vital Statistics, and (*d*) Medicine in its bearings on Public Health, and the examinations in these subjects shall be taken at one time.

VI. Candidates who have passed their examinations in the subjects comprised in the first division shall not be admitted to examination in the second division sooner than eighteen months after having taken their degree in Medicine, nor sooner than six months after having passed the first examination.

VII. The Board of Studies for the Faculty of Science along with the Lecturer or Professor of Public Health shall from time to time, with the approval of the Senatus and the University Court, determine and announce the character of the instruction to be given in the Laboratory, and shall fix the standard of the examinations.

VIII. It shall also be competent for the University Court, after consultation with the Senatus, to modify from time to time the provisions as to the work and instruction hereinbefore specified as necessary for graduating in Science in Public Health, in case such modification shall be rendered desirable by the development of the Science of Public Health, or by increase of the facilities provided in the said University or elsewhere for the study of any branch of the said Science.

---

[1] The Senate, with the approval of the University Court, has made, under Ordinance No 13, the following regulation:—A period of not less than twelve months shall have elapsed between the attainment of a registrable qualification in Medicine, Surgery, and Midwifery, and the admission of the candidate to any examination, or any part thereof, for the Degree of B.Sc. in Public Health.

IX. The Examiners for graduation in Science for the Degree of B.Sc. in Public Health in the University of Glasgow shall be the Professors in that University whose subjects qualify for graduation in Science, together with such Lecturers in the University, and such additional Examiners to be appointed by the University Court as the University Court shall deem necessary, provided that the Court shall make such provision as will ensure that every candidate shall be examined in each subject by at least two Examiners, of whom one shall not be a Professor or Lecturer in the University. Provided also that the Examination under Section V. in Sanitation, including reports of dwellings, workshops, and hospitals, and sanitary schemes generally, shall be conducted by two Examiners, one of whom shall be a Medical Officer of Health, and the other shall be the Professor of, or Lecturer on, Public Health in the University.

D.Sc. In Public Health.

X. Graduates who have held the degree of Bachelor of Science in Public Health from the University of Glasgow for a term of five years, may offer themselves for the Degree of Doctor of Science in Public Health in the said University.

XI. Each candidate for the degree of Doctor of Science in Public Health shall present a thesis or a published memoir or work to be approved by the Senatus, on the recommendation of the Faculty of Science, and shall also be required to pass an examination in Public Health, and in such of its special departments as the Senatus, with the approval of the University Court, by regulations framed from time to time, shall determine.

The thesis, or published memoir or work, shall be a record of original research undertaken by the candidate, and shall be accompanied by a declaration, signed by him, that the work has been done, and the thesis or memoir composed by himself.[1]

XII. The Senatus Academicus shall appoint such Professors or Lecturers as it may think suitable to conduct the examination of candidates who may offer themselves under the provisions of this Ordinance for the Degree of Doctor of Science, and the University Court shall, after consultation with the Senatus Academicus, appoint such additional Examiners as they deem necessary to act along with them. Such additional Examiners shall be persons of recognised eminence in the subject of the thesis, or memoir, or work which is to be submitted for approval, and may be Professors or Lecturers in any Scottish University other than the University of Glasgow.

XIII. The thesis, memoir, or work submitted by a candidate for the Degree of Doctor of Science shall in each case be examined by the

---

[1] See second note on page 254.

TABLE OF EXAMINATIONS FOR DEGREE OF B.SC. IN PUBLIC HEALTH DURING SESSION 1909-10.

Names to be given in and Fees paid to Assistant-Clerk[1] (Matriculation Office). Date.[2]	FEE.	Subjects of Examination.	Dates of Written Examinations and Hours at which the different Papers will be set. The Oral Examinations in Science follow the Written at dates to be arranged.	
			September-October, 1909.	March, 1910.
7th September, 1909, or 7th March, 1910.	£1 1s. FOR EACH SUBJECT UNTIL £6 6s. SHALL HAVE BEEN PAID.	Public Health Laboratory,	Mon., 27th Sept., 9—4 p.m.	Tues., 22nd March, 9—4 p.m.
		Do., do.,	Tues., 28th Sept., 2—5 p.m.	Wed., 23rd March, 2—5 p.m.
		Vital Statistics, . .	Do., do., 9—11 a.m.	Do., do., 9—11 a.m.
		Sanitary Law, . .	Do., do., 12—2 p.m.	Do., do., 12—2 p.m.
		Medicine in relation to Public Health, . .	Wed., 29th Sept., 9—11 a.m.	Thurs., 24th March, 9—11 a.m.
		Practical Sanitation, .	Do., do., 12—2 p.m.	Do., do., 12—2 p.m.
		Geology, . .	Tues., 5th Oct., 9—12 noon.	Sat., 26th March, 9—12 noon.
		Do., . .	Wed., 6th Oct., 9—11 a.m.	Mon., 28th March, 9—11 a.m.

---

[1] For Women students, Miss Melville, Queen Margaret College.

[2] When Names are not given in and Fees are not paid on or before the stated dates, a late Entry Fee of Ten Shillings must be paid before the candidate can be admitted to examination. A candidate is not held to be entered for the examination until his name is entered, the fee paid, and all the necessary certificates, etc., lodged. Late Entry Fees will not be accepted less than three days before the date of Examination.

additional Examiner to be appointed by the University Court, as well as by the Examiners to be appointed by the Senatus under the provisions of Section XII. of this Ordinance.

XIV. The result of the examination of the thesis, memoir, or work submitted by a candidate, as well as the result of the Examination prescribed under Section XI. of this Ordinance, shall be reported to the Faculty of Science.

General.

XV. Candidates who produce certificates bearing that, either before or after, or partly before and partly after, the date at which this Ordinance shall come into force, they have satisfied the conditions prescribed by this Ordinance, and who have passed the necessary examinations, shall be entitled to receive the degrees of Bachelor of Science in Public Health and Doctor of Science in Public Health, as the case may be, on payment of the fees required.

XVI. The degrees of Bachelor and Doctor of Science in Public Health shall in no case be conferred on persons who have not complied with the conditions hereinbefore set forth, and shall not be conferred *honoris causâ tantum*.

XVII. This Ordinance shall come into force from and after the date on which it is approved by His Majesty in Council.

Approved, 20th May, 1903.

Degree in Science in Pharmacy.

The following are the provisions of the University Court Ordinance No. XVI. (Glasgow No. 4), issued on 3rd May, 1906, and approved by His Majesty in Council on 11th February, 1907 :—

I. A Degree of Bachelor of Science in Pharmacy (B.Sc. Pharm.) may be conferred by the University of Glasgow.

II. Every candidate for the Degree of Bachelor of Science in Pharmacy must pass the Preliminary Examination prescribed by the Arts Ordinance (Regulations for Degrees in Arts), and the conditions with respect thereto imposed by the said Ordinance shall be applicable in all respects to Candidates for the Degree of Bachelor of Science in Pharmacy, except as follows:—(1) French or German may be substituted for Latin or Greek; (2) Mathematics shall be passed on the higher standard; (3) a degree in Arts (not being a degree *honoris causâ tantum*) in any of the Universities of the United Kingdom, or in any Colonial or Foreign University specially recognised for the purpose by the University Court after consultation with the Senatus Academicus, shall exempt from the Preliminary Examination.

III. Candidates for the Degree of Bachelor of Science in Pharmacy must, in the course of not less than three Academical years, within the meaning of the Ordinance last above mentioned, attend at least seven courses of instruction in subjects prescribed for examination under Sections X. and XI. of this Ordinance, and must have been practically engaged in the operations of Pharmacy, and have fulfilled the other conditions thereanent, as prescribed in Section XI. of this Ordinance.

IV. Three of the courses mentioned in Section III. must be in subjects prescribed for the first Science Examination under Section X. of this Ordinance, and four must be in subjects prescribed for the final Science Examination under Section XI. of this Ordinance.

V. (1) Four of the seven courses must be taken in the University of Glasgow.

(2) Three may be taken in other Universities or Institutions approved by the University Court, or under teachers recognised by the University Court for purposes of graduation in Science; provided that the fees for attendance at an approved Institution or under a recognised teacher in Glasgow shall not be less than the fees exigible for the corresponding courses in the University.

VI. All Candidates, not matriculated students of the University, availing themselves of the permission to attend lectures at approved Institutions, or by recognised teachers in Glasgow, shall at the commencement of each year of such attendance, enrol their names in a book to be kept for that purpose in the University, paying a fee of the same amount as the Matriculation Fee paid by students of the University, and having, in respect of such payment, a right to the use of the Library of the University.

VII. (1) After receiving through the Faculty of Science the opinion of the Board of Studies, the Senatus shall determine from time to time the number of meetings of which a full course in any subject shall consist, and shall report its determination to the University Court for its approval.

(2) After receiving through the Faculty of Science the opinion of the Board of Studies, the Senatus, with the approval of the University Court, may sanction half courses of not less than half the number of meetings that constitute a full course in the subject; and two half courses shall be held to be equivalent to a full course in such cases as the Senatus, with the approval of the University Court, may determine, and under such regulations as may from time to time be made for that purpose.

(3) It shall be the duty of each Professor and Lecturer annually at he end of each Winter Session, to submit to the Board of Studies a scheme specifying what proportion of the courses shall be devoted to ectures, practical demonstrations, examinations, and tutorial work espectively. The Board of Studies shall transmit the schemes to the Faculty of Science, who shall submit them to the Senatus with such bservations as they may think fit to make thereon. The Senatus shall ransmit such schemes, with such observations as it may think fit to make thereon, to the University Court for its approval.

(4) It shall be the duty of each Professor and Lecturer annually at the nd of each Winter Session to submit to the Board of Studies for its pproval a syllabus of the subjects and books proposed for the work f his class or classes during the next Academical year. Upon such

approval being given the syllabus shall be transmitted to the Faculty of Science for its consideration. The syllabus, with such observations as the Faculty of Science may think fit to make thereon, shall then be transmitted to the Senatus for its sanction.

VIII. The provisions of the preceding section shall not apply to approved Institutions or recognised Teachers outside Glasgow; but the University Court shall not grant or continue recognition to any Institutions or Teachers unless they shall be satisfied that their courses of instruction are equivalent to the courses sanctioned in the Universities of Scotland.

IX. Candidates must be matriculated students of the University of Glasgow when they appear for examination or graduation.

X. (1) There shall be a First Science Examination in the three following subjects, viz.:—(1) Mathematics or Biology (*i.e.*, Zoology and Botany); (2) Natural Philosophy; (3) Chemistry.

(2) The Examination in all these subjects shall be the same as the Examination in these subjects for the first Bachelor of Science Examination in Pure Science with the addition of practical work in the subjects which admit of it.

(3) Candidates may present themselves in any one or more of these subjects at any Examination held after they have attended the required course in the subject or subjects professed.

XI. (1) There shall be a Final Science Examination on a higher standard on the following subjects:—

1. Chemistry.
2. Botany.
3. Materia Medica.
4. Pharmacy.

(2) Candidates presenting themselves for this Examination must (*a*) have passed in all the subjects comprised in their First Science Examination; (*b*) have attended a full course of higher instruction, including practical or laboratory work, in each of the four subjects; and (*c*) already be Chemists and Druggists registered under the Pharmacy Acts, 1852 and 1868, *or* be Graduates in Medicine of a University of the United Kingdom, or of some other University recognised for the purpose by the University Court of the University of Glasgow.

XII. If a student, before passing the Preliminary Examination, has attended a class qualifying for graduation, the Senatus may, on special cause shown, permit him to count such class for graduation, on condition of his passing the full Preliminary Examination within such time thereafter as the Senatus may appoint, and in every case the Senatus shall make a report to the University Court setting forth the reasons for the relaxation.

XIII. A candidate for the Degree of Bachelor of Science in Pharmacy shall not be deemed (1) to have attended a class as part of the curriculum for that Degree who does not present a certificate bearing not only that he has given regular attendance, but also that he has duly performed the work of the class; (2) to have fulfilled the conditions respecting the practice of Pharmacy who does not present a certificate or diploma showing that he possesses either of the qualifications required under Section XI. (2) *c* of this Ordinance.

XIV. It shall be competent to the Examiners for the Degree of Bachelor of Science in Pharmacy to report that a candidate has passed with special distinction in one or more of the subjects professed by him; and in such a case a diploma shall be given setting forth the subjects in respect of which the Degree has been granted, and the subject or subjects in which special distinction has been obtained.

XV. The Examiners for the Degree of Bachelor of Science in Pharmacy in the University of Glasgow shall be the Professors in that University whose subjects qualify for the Degree, together with such Lecturers in the University and such additional Examiners to be appointed by the University Court as the University Court shall deem necessary, provided that the Court shall make such provisions, as will ensure that every candidate shall be examined in each subject by at least two examiners, of whom one shall not be a Professor or Lecturer in the University.

XVI. Candidates who produce certificates that they have satisfied all the conditions prescribed by this Ordinance, and who have passed the necessary examinations, shall be entitled to receive the Degree of Bachelor of Science in Pharmacy on payment of the fees required.

XVII. The Degree of Bachelor of Science in Pharmacy shall in no case be conferred on persons who have not complied with the conditions hereinbefore set forth, and shall not be conferred *honoris causâ tantum*.

XVIII. For the purposes of this Ordinance the Professor of Materia Medica shall be deemed to be a Member of the Faculty of Science.

XIX. This Ordinance shall come into force at the beginning of the Winter or Summer Session next after the date of its approval by His Majesty in Council.

Diploma in Education.

The following regulations drawn up by the Senate were approved by the University Court on 26th April, 1900:

1. Candidates for the Diploma in Education must be graduates[1] in Arts or Science of a University in the United Kingdom, or of some other University recognised for this purpose by the University Court.

2. The diploma is of two grades: (*a*) General Diploma, and (*b*) Diploma with Distinction.

3. The general diploma is open to any graduate in Arts or Science who fulfils the following requirements:

(*a*) In addition to the curriculum for his Degree he must give attendance on a full course and pass the Degree examination on the same, subject to the condition that the regulations applicable to this additional course as a Degree course shall be fulfilled. This additional course may be taken at any time either before or after graduation.

---

[1] Women who have been placed in the Class-lists of one or other of the Final Honours Examinations in the University of Oxford or the University of Cambridge shall be deemed to be graduates for the purpose of these regulations.

(*b*) The Education course must in every case either constitute part of his Degree curriculum, or be the additional course prescribed in the preceding subsection.

(*c*) He must produce evidence either (1) that he has attended a course of Professional Training, extending over three years, under a Provincial Committee for the Training of Teachers or in a Training College for Teachers, or (2) that, after graduation, he has attended a course of Professional Training, extending over one year, under a Provincial Committee for the Training of Teachers or in a Training College for Teachers.

(*d*) He must pass a Written examination, conducted by the University, in School Management and Organisation and Methodology, and give proof of his practical skill by conducting a class to the satisfaction of an Examiner or Examiners appointed by the University.

4. The Diploma with Distinction is open to any holder of an ordinary degree in Arts, any graduate in Arts with Honours, or any graduate in Science, who fulfils the requirements of the preceding regulation, and in addition passes an examination on the method of teaching one or more of the following groups of subjects as taught in Secondary Schools, viz. (*a*) Classics; (*b*) Mathematics; (*c*) Science; (*d*) English, including History; (*e*) French and German: Provided always that the holder of an ordinary Degree in Arts before being admitted to the examination on the method of teaching shall be required to pass an examination equivalent to an Honours or to a Final Science examination in the group or groups of subjects selected by him.

5. The Fee for the Diploma is Two Guineas.

Examinations for the Diploma will be held on Friday, 12th November, 1909, from 9 a.m. to 12 noon, and from 2 p.m. to 5 p.m.; and on Friday, 24th June, 1910, from 9 a.m. to 12 noon, and from 2 p.m. to 5 p.m. Candidates for the General Diploma take the forenoon paper only. Names of candidates to be given in to the Assistant-Clerk, Matriculation Office, on 1st November, 1909, or on 9th June, 1910.

3.—HIGHER DEGREES IN ARTS AND SCIENCE.

In University Court Ordinance No. XXVI., issued on 11th June, 1908, and approved by His Majesty in Council on 26th September, 1908, the University Court made the following regulations for Higher Degrees in Arts and Science :—

Degree of D.Sc.

I. Graduates who have obtained any degree in the University of Glasgow, and who have either before or after graduation passed the Examination in an Honours Group for the degree in Arts, or the Final Science Examination for the degree in Pure Science or in

Engineering, may offer themselves for the degree of Doctor of Science (D.Sc.) after the expiry of five years from the date of their graduation.

II. Research Students within the meaning of Ordinance No. 61 [General, No. 23.—Regulations for the Encouragement of Special Study and Research and for the Appointment of Research Fellows], who have prosecuted in the University of Glasgow some special study or research under that Ordinance, may offer themselves for the degree of Doctor of Science; provided

(1) That they have obtained a degree in any Scottish University, or a degree in another University specially recognised by the University Court for the purpose of this section which the Senatus shall deem to be equivalent to the corresponding degree in the University of Glasgow; and provided that candidates who have obtained any such degree in a University outside the United Kingdom so recognised may be required, if the Senatus think fit, before beginning their course as Research Students with a view to the degree of Doctor of Science, to pass an examination equivalent to an Honours or to a Final Science Examination in a group of subjects cognate to their line of work as Research Students.

(2) That they have spent not less than two terms in each of two academical years, or an equivalent period, as Research Students in the University of Glasgow, and that they produce to the Senatus evidence of satisfactory progress in the special study or research undertaken by them during that period.

(3) That a period of not less than five years shall have elapsed from the date of the graduation required in sub-section (1) of this section.

III. All candidates for the degree of Doctor of Science shall present a thesis or a published memoir or work, to be approved by the Senatus on the recommendation of the Faculty of Science; provided that, if required by the Senatus, the candidate shall also be bound to pass such an examination conducted orally or practically, or by written papers, or by all of these methods, on the subjects of his special study or of his thesis, memoir, or work, as may from time to time be determined. The thesis shall be a record of original research in relation to science undertaken by the candidate, or of some important engineering work designed by the candidate and actually carried out, and shall be accompanied by a declaration signed by him that the work has been done and the thesis composed by himself. If the thesis has not already been published, it shall be published by the candidate in such manner as the Senatus shall approve, and a copy thereof shall be deposited by the candidate in the University Library.

Degree of D.Phil.

IV. Graduates who have obtained any degree in the University of Glasgow, and who have either before or after graduation passed the Examination in an Honours Group for the degree in Arts, or the

Final Science Examination for the degree in Pure Science or in Engineering, may offer themselves for the degree of Doctor of Philosophy (D.Phil.) after the expiry of five years from the date of their graduation.

V. Research Students as aforesaid, who have prosecuted in the University of Glasgow some special study under Ordinance No. 61 [General, No. 23.—Regulations for the Encouragement of Special Study and Research, and for the Appointment of Research Fellows], may offer themselves for the degree of Doctor of Philosophy; provided—

(1) That they have obtained a degree in any Scottish University, or a degree in another University, specially recognised by the University Court for the purpose of this section which the Senatus shall deem to be equivalent to the corresponding degree in the University of Glasgow; and provided that candidates who have obtained any such degree in a University outside the United Kingdom so recognised may be required, if the Senatus think fit, before beginning their course as Research Students with a view to the degree of Doctor of Philosophy, to pass an examination equivalent to an Honours Examination in a group of subjects cognate to their line of work as Research Students.

(2) That they have spent not less than two terms in each of two academical years, or an equivalent period, as Research Students in the University of Glasgow, and produce to the Senatus evidence of satisfactory progress in the special study undertaken by them during that period.

(3) That a period of not less than five years shall have elapsed from the date of the graduation required in sub-section (1) of this section.

VI. All candidates for the degree of Doctor of Philosophy shall present a thesis or a published memoir or work, which shall be an original contribution to learning in relation to philosophy, to be approved by the Senatus on the recommendation of a Special Committee appointed by the Senatus; provided that, if required by the Senatus, a candidate shall also be bound to pass such an examination, conducted orally or otherwise, on the subjects of his special study, or of his thesis, memoir, or work, as may from time to time be determined. The thesis or memoir or work shall be accompanied by a declaration signed by the candidate that it has been composed by himself. If the thesis has not already been published, it shall be published by the candidate in such manner as the Senatus shall approve, and a copy thereof shall be deposited by the candidate in the University Library.

DEGREE OF D.LITT.

VII. Graduates who have obtained any degree in the University of Glasgow, and who have either before or after graduation passed the Examination in an Honours Group for the degree in Arts, or the Final Science Examination for the degree in Pure Science or in

Engineering, may offer themselves for the degree of Doctor of Letters (D.Litt.) after the expiry of five years from the date of their graduation.

VIII. Research Students as aforesaid, who have prosecuted in the University of Glasgow some special study under Ordinance No. 61 [General, No. 23.—Regulations for the Encouragement of Special Study and Research, and for the Appointment of Research Fellows], may offer themselves for the degree of Doctor of Letters; provided—

(1) That they have obtained a degree in any Scottish University, or a degree in another University specially recognised by the University Court for the purpose of this section, which the Senatus shall deem to be equivalent to the corresponding degree in the University of Glasgow; and provided that candidates who have obtained any such degree in a University outside the United Kingdom so recognised may be required, if the Senatus think fit, before beginning their course as Research Students with a view to the degree of Doctor of Letters, to pass an examination equivalent to an Honours Examination in a group of subjects cognate to their line of work as Research Students.

(2) That they have spent not less than two terms in each of two academical years, or an equivalent period, as Research Students in the University of Glasgow, and produce to the Senatus evidence of satisfactory progress in the special study undertaken by them during that period.

(3) That a period of not less than five years shall have elapsed from the date of the graduation required in sub-section (1) of this section.

IX. All candidates for the degree of Doctor of Letters shall present a thesis or a published memoir or work, which shall be an original contribution to learning in relation to literature, to be approved by the Senatus on the recommendation of a Special Committee appointed by the Senatus; provided that, if required by the Senatus, a candidate shall also be bound to pass such an examination, conducted orally or otherwise, on the subjects of his special study, or of his thesis, memoir, or work, as may from time to time be determined. The thesis or memoir or work shall be accompanied by a declaration signed by the candidate that it has been composed by himself. If the thesis has not already been published, it shall be published by the candidate in such a manner as the Senatus shall approve, and a copy thereof shall be deposited by the candidate in the University Library.

GENERAL.

X. Notwithstanding, and in supplement of the provisions of Ordinance No. 13 [General, No. 8.—Regulations as to Examinations], sections XIV. and XV., the Senatus shall appoint such Professors or Lecturers in the University as it may think suitable to examine the theses and to conduct the examination of candidates who may offer themselves under the provisions of Ordinance No. 12 [General, No. 7.

—Regulations for Degrees in Science] or of Ordinance No. 23 [Glasgow, No. 2.—Regulations for Degrees in Science in Engineering] or of this Ordinance, for the degree of Doctor of Science, Doctor of Philosophy, or Doctor of Letters; and the University Court shall, after consultation with the Senatus, appoint one or more additional Examiners to act along with them in adjudicating on the merits of the candidates. Every such additional Examiner shall be a person of recognised eminence in the subject of the thesis or memoir or work which is to be submitted for approval, and may be a Professor or Lecturer in any Scottish University other than the University of Glasgow. The result of the examination and adjudication shall be reported to the appropriate Faculty or Special Committee of Senatus, who shall if they think fit make a recommendation thereon to the Senatus; and no candidate shall be approved for the degree unless the Senatus is satisfied that his work is of distinction as a record of original research undertaken by himself, or of important engineering work designed by himself and actually carried out, or as an original contribution to learning.

XI. The degrees of Doctor of Science, Doctor of Philosophy, and Doctor of Letters shall in no case be conferred on persons who have not satisfied the conditions hereinbefore set forth, and shall not be conferred *honoris causâ tantum.*

XII. The fee to be paid for the degree of Doctor of Science shall be ten guineas, and shall be payable on each occasion on which the candidate offers himself for the degree.

XIII. The fee to be paid for the degree of Doctor of Philosophy shall be ten guineas, and shall be payable on each occasion on which the candidate offers himself for the degree.

XIV. The fee to be paid for the degree of Doctor of Letters shall be ten guineas, and shall be payable on each occasion on which the candidate offers himself for the degree.

XV. This Ordinance shall come into force from and after the date on which it is approved by His Majesty in Council.

4.—GRADUATION IN MEDICINE AND SURGERY.

The Degrees in Medicine and Surgery conferred by this University are all recognised by the Medical Acts as qualifying for practice throughout the British dominions, and for admission to the Army, Navy, and Public Medical Service.

Every student who began medical studies previous to 1st January, 1892, is entitled to graduate under the system in force before or after that date, according as he shall comply with the regulations in force in the University before[1] or after that date. All others must fulfil the requirements of the new ordinance—(Ordinance No. 14, Glasgow No. 1—Regulations for Degrees in Medicine)—the principal provisions of which are as follows:—

---

[1] These regulations may be found at pp. 188—192 of the *University Calendar* for session 1895-96, and in the *Calendars* for preceding sessions.

I. Four degrees in Medicine and Surgery are conferred by the University of Glasgow, viz., Bachelor of Medicine (M.B.), Bachelor of Surgery (Ch.B.), Doctor of Medicine (M.D.), and Master of Surgery (Ch.M.). The Degree of Bachelor of Surgery shall not be conferred on any person who does not at the same time obtain the Degree of Bachelor of Medicine, and the Degree of Bachelor of Medicine shall not be conferred on any person who does not at the same time obtain the Degree of Bachelor of Surgery.

II. Subject to regulations to be made from time to time by the University Court, the University may also confer diplomas in Special Branches of Medical and Surgical Practice on graduates of the University in Medicine and Surgery.

III. Before commencing his medical studies, each student shall pass a Preliminary Examination in (1) English, (2) Latin, (3) Elementary Mathematics, and (4) Greek or French or German: Provided always that, in the case of a candidate whose native language is not English, an examination in the native language of the candidate may be substituted for one in either French or German, and an examination in any other classical language for one in Latin or Greek.[1]

IV. The extent and standard of the Preliminary Examination shall be determined by the Joint Board of Examiners constituted under Ordinance No. 13 (Regulations as to Examinations) in accordance with the terms of that ordinance.

Under this section the Joint Board have directed that for the Medical Preliminary Examination the papers set in Latin, Greek, and Mathematics shall be the same as those set on the lower standard in these subjects in the Arts and Science Preliminary Examination.[2]

In English, no set books shall be prescribed, nor shall a general knowledge of the life and works of the greater authors be expected of candidates, but one or two questions may be set, giving an opportunity to candidates to show a knowledge of famous literary works. The historical questions shall not be confined to any one period, but shall cover the whole of British History, and shall be set in such a way as to give an opportunity to candidates who have confined their studies to a single period to show their knowledge. A single three hours' paper shall be set, containing an Essay, a Paraphrase, two questions on History, two on Geography, four on Grammar (including correction of sentences, parsing, analysis of sentences, and derivations), two of a literary and general kind. Eight answers shall be required. The Essay, the Paraphrase, one answer on History and one on Geography shall be compulsory.

---

[1] The candidate for the Degrees of Bachelor of Medicine and Bachelor of Surgery nust have been registered in the books of the General Medical Council at least five years prior to the date of his graduation. In order to be so registered he must ransmit to James Robertson, Esq., the Scottish Branch Registrar, 54 George Square, Edinburgh, together with a printed form of application, which may be obtained rom the Assistant Clerk (Matriculation Office, University), a certificate of having assed the Preliminary Examination, and satisfactory evidence of the applicant aving attained the age of sixteen years.

[2] For details see pp. 213–215.

One paper shall be set in French and one in German. The papers shall be of a lower standard than those set in these subjects in the Arts and Science Preliminary Examination. The time allowed for each of these papers shall be three hours. The paper in each subject shall comprise questions in Grammar, translation into English, a piece of English, and some short sentences in English of an idiomatic character, for translation.

The papers set in examinations in the *native language* of a candidate (as a substitute for French or German) or in *another classical language* (as a substitute for Latin or Greek) shall conform, so far as possible, to the directions for setting papers in Latin or Greek.

It shall be in the option of any candidate for the Medical Preliminary to take the papers set on the higher standard for the Arts Preliminary in any of the subjects.

Candidates who, having taken English, Latin, Greek, or a Modern Language, on the higher standard, as prescribed by the Arts Ordinance for the Arts and Science Preliminary, have obtained a satisfactory percentage of marks, shall be held to have passed the Medical Preliminary in these subjects; and on the higher Mathematics paper an intermediate pass in Mathematics is granted: Provided that all the required subjects are passed at no more than two examinations.

It shall be at the Board's discretion at all times in the case of any candidate for the Medical Preliminary who professes all his four subjects at one time, and who has obtained in all a number of marks equivalent to the sum of the marks required for a pass in each, to allow such candidate a pass in the whole examination, provided that in no single subject he has obtained less than half of the marks required for a pass, and that the pass-mark be reached in the English paper.

V. The Preliminary Examination shall be conducted in accordance with the provisions of Ordinance No. 13 (Regulations as to Examinations), and, subject to the provisions of the immediately succeeding section hereof, *a candidate shall be obliged to pass in all the required subjects at one or not more than two examinations: Provided that he may offer himself for re-examination as often as may be necessary to satisfy this condition.*[1]

VI. A degree in Arts or in Science (not being a degree *honoris causa tantum*) in any of the Universities of the United Kingdom, or in any Colonial or Foreign University specially recognised for the purpose by the University Court, shall exempt from the Preliminary Examination; and the Joint-Board of Examiners appointed under the provisions of Ordinance No. 13 (Regulations as to Examinations) shall have power to determine what examinations, other than those for the degrees hereinbefore mentioned, shall be accepted, either in whole or in part, in place of the Preliminary Examination.[2]

---

[1] The words in *italics* are taken from Ordinance No. 156, Section I.

[2] Applications for exemption on the ground of having passed examinations not included in the following list should be addressed to the Convener of the Board. As several Universities have to be consulted, a decision on a new case cannot be guaranteed in less time than from two to three weeks.

The Joint-Board have issued the following rules under the heading:—Examinations accepted as exempting from the Preliminary Examination in Medicine: *Provided always that the regulations of the General Medical Council regarding the registration of students of Medicine be complied with* :—

1. In terms of the Medical Ordinances, "a degree in Arts or in Science (not being a degree *honoris causa tantum*) in any of the Universities of the United Kingdom, or in any Colonial or Foreign University, specially recognised for the purpose by the University Court, shall exempt from the Preliminary Examination."

2. Any candidate who produces a certificate of having passed the Preliminary Examination in Arts or Science in any Scottish University, either at the University Examination or through the Leaving Certificate Examinations of the Scotch Education Department, or partly at the University Examination and partly through the Leaving Certificate Examinations, shall be held to have passed the Preliminary Examination for Medicine: Provided that the examination has included the specified subjects of General Education as required under the Regulations of the General Medical Council, and by Section III. of this ordinance.

3. A candidate who has passed the Arts and Science Preliminary Examination of the Joint Board in any subject (Higher Standard where there is more than one) recognised for the Medical Preliminary Examination, shall be exempted from further examination in that subject in the aforesaid Preliminary Examination.

4. A candidate who has passed in the Honours or Higher Grade in any subject of the Leaving Certificate Examinations of the Scotch Education Department recognised for the Medical Preliminary Examination shall be exempted from further examination in that subject in the aforesaid Preliminary Examination.

The regulation that all the subjects of the examination shall be passed at one or not more than two examinations shall not be held to apply to the above cases, 2, 3, and 4. But candidates complying with Rules 2, 3, and 4 must obtain a University Certificate specifying the examinations passed by them which have been accepted as equivalents to the Preliminary, and must present said certificate to the Medical Registrar in order to registration.

Further, each such candidate when applying for said certificate must, if he has not entered for any part of the Preliminary, produce a Matriculation Card from some one of the Scottish Universities.

5. Passes in the lower Grade of the Leaving Certificate Examinations of the Scotch Education Department will not be accepted as exempting from the Medical Preliminary Examination unless the examinations in all the requisite subjects have been taken and passed at one or not more than two examinations.

The Intermediate Certificate of the Scotch Education Department shall be accepted in lieu of the Medical Preliminary Examination, provided that it includes the four requisite subjects. When all the necessary subjects are not included, passes in individual subjects may be accepted if the Department has notified to the Clerk of Senatus or to the Joint Board that a sufficient standard has been reached in such subjects.

6. The following English and Irish University Examinations will be accepted[1] (provided they include all the subjects required under the regulations of the General Medical Council, and prescribed by Section III. of this ordinance), viz.:—

OXFORD Responsions, or Moderations—provided the candidate pass the examination of the Joint-Board in English.

CAMBRIDGE Previous Examination—provided that candidates who have passed it prior to Michaelmas, 1896, shall pass the examination of the Joint-Board in English. If passed after Michaelmas, 1896, the Previous Examination will be accepted as exempting *in toto*.

OXFORD AND CAMBRIDGE SCHOOLS EXAMINATION BOARD.—The Passes in Latin, Greek, and Mathematics specified on p. 219, as exempting from the Lower Standard in Arts and Science will exempt also for the Medical Preliminary in these subjects. The Pass in French or German for the Lower Certificate or for the 'Leaving Certificate' will be accepted for a Pass in the Medical Preliminary in French or German. For English, the Board will accept (1) The Higher Certificate with English; (2) The 'Leaving Certificate' in English, with History *or* Geography; (3) The Lower Certificate in English, History, and Geography.

OXFORD Senior Local Examination will be accepted *pro tanto*, in subjects other than English; in English, if only a pass is offered, the three divisions, Essay, Grammar, and Literature will be expected, or equivalents thereto.

OXFORD Higher Local Examination will be accepted *pro tanto*.

CAMBRIDGE Senior Local Examinations will be accepted *pro tanto*.

CAMBRIDGE Higher Local Examinations will be accepted *pro tanto*.

LONDON UNIVERSITY Matriculation Examination.

DUBLIN, TRINITY COLLEGE.—Public Entrance Examination.

ROYAL UNIVERSITY OF IRELAND.—Matriculation Examination.

UNIVERSITIES OF MANCHESTER, LIVERPOOL, LEEDS, AND SHEFFIELD.—Joint Matriculation Examination (the whole examination must be passed, as required for admission to the Faculties of these Universities).

---

[1] The italicised words in Section V., page 286, shall be held to apply to the acceptance of these Examinations.

By *pro tanto* is here meant that a certificate of having passed in the examination referred to, in any subject required for the Medical Preliminary Examination, shall, as regards that subject, exempt from further examination in the said Preliminary Examination, provided that all the required subjects shall be passed at one or not more than two examinations.

7. Provided the examinations include all the subjects required by the General Medical Council and prescribed by the Medical Ordinances of the Scottish Universities Commissioners, see p. 285, Section III.—

BRITISH COLONIES AND DEPENDENCIES:—

Candidates from British Colonies and Dependencies who present evidence that they have passed examinations which would admit them to Universities or to Technical Colleges affiliated to a University in their home country will be exempted, provided that the evidence shows that they possess a knowledge of English sufficient to follow the Lectures with profit.

CONTINENTAL COUNTRIES:

Abiturienten-Examen, of (1) the Gymnasium, (2) Realgymnasium, and (3) Oberrealschule of Germany, and corresponding Entrance Examinations to the Universities of other countries will be accepted.

Students would do well to ascertain at the Matriculation Office whether their Preliminary Examination is complete before beginning their medical studies.[1]

PROFESSIONAL EDUCATION.

VII. Candidates shall be admitted to the Degree of Bachelor of Medicine and Bachelor of Surgery only after they have fulfilled the following conditions:—

1. The candidate must have been engaged in medical study for at least five years.

2. In each of the first four years the candidate must have attended at least two courses of instruction, in one or more of the subjects of study specified in Sub section 4 hereof—each course extending over a session of not less than five months, either continuous or divided into two terms; or, alternatively, one such course, along with two courses, each extending over a session of not less than two and a half months.

3. During the fifth or final year the candidate shall be engaged in clinical study for at least nine months at one or more of such

---

[1] For Order of Study recommended, see p. 109.

public hospitals or dispensaries, British or Foreign, as may be recognised for the purpose by the University Court.

4. The candidate must, during his curriculum, have attended a course or courses of instruction in each of the following subjects of study, including such examinations as may be prescribed in the various classes, viz.:—

1. Anatomy,	During a course of not less than five months.
2. Practical Anatomy,	During two courses of not less than five months each.
3. Chemistry,	During courses of not less than five months.
4. Materia Medica and Therapeutics,	
5. Physiology or Institutes of Medicine,	
6. Practice of Medicine,	
7. Surgery,	
8. Midwifery and the Diseases peculiar to Women and Infants. Two courses of Midwifery, of three months each, provided different departments of Obstetric Medicine be taught in each of the courses, shall be reckoned equivalent to a course of not less than five months,	
9. Pathology,	
10. Practical Chemistry,	During courses of not less than two and a half months.
11. Physics (including the Dynamics of Solids, Liquids, and Gases, and the Rudiments of Sound, Heat, Light, and Electricity),	
12. Elementary Botany,	
13. Elementary Zoology,	
14. Practical Physiology,	
15. Practical Pathology,	
16. Medical Jurisprudence and Public Health,	

Provided always, in so far as regards the University of Glasgow, that—

(*a*) It shall be the duty of the Senatus to determine from time to time [after receiving through the Faculty of Medicine the opinion of the Board of Studies] the number of meetings of which such courses shall consist, and in what cases two half courses shall be deemed equivalent to a full course ; and to report the determination to the University Court for its approval.[1]

(*b*) It shall be the duty of the Professors and Lecturers to submit to the Senatus [after 1st October, 1894, the Board of Studies] annually at the end of the winter session a scheme specifying what proportion of the courses shall be devoted to lectures, practical demonstrations, examinations, and tutorial work respectively. [The Board of Studies shall transmit the schemes to the Faculty of Medicine, who shall submit them to the Senate with such observations as they may think fit to make thereon.] The Senatus shall transmit such schemes, with such observations as it may think fit to make thereon, to the University Court for its approval.[1]

---

[1] The Universities Commission, on 18th November, 1893, ordained that for the better carrying out of the purposes of these provisos the Senate should institute a Board or Boards of Studies in the Faculty of Medicine. See Section 1., Ordinance No. 42, which received the approval of Her Majesty in Council on 28th May, 1894. The provisions of this supplementary ordinance have, in the text, been combined with the provisions of the original ordinance, by means of square brackets.

(c) The University Court shall not grant or continue recognition to any institutions or teachers unless it shall be satisfied that their courses of instruction are equivalent to the courses sanctioned in the Universities of Scotland.

5. The candidate must have attended for at least three years the Medical and Surgical Practice of a General Hospital at Glasgow or elsewhere, which accommodates not fewer than eighty patients, and possesses a distinct staff of physicians and surgeons, and is recognised for the purpose by the University Court.[2]

6. The candidate must have attended Clinical Surgery during a course or courses extending over not less than nine months. These courses may be conducted by the Professor of Clinical Surgery, or by Professors or Lecturers appointed for the purpose by the University Court, or by the ordinary surgeons of a general hospital defined and recognised as hereinbefore provided, and shall consist of regular instruction at the bedside, along with Clinical Lectures.

7. The candidate must have attended Clinical Medicine during a course or courses extending over not less than nine months. These courses may be conducted by the Professor of Clinical Medicine, or by Professors or Lecturers appointed for the purpose by the University Court, or by the ordinary physicians of a general hospital defined and recognised as hereinbefore provided, and shall consist of regular instruction at the bedside, along with Clinical Lectures.

8. The candidate must have attended a course of instruction in Mental Diseases, of such duration, and so apportioned between lectures, demonstrations, and clinical instruction, as the Senatus, with the approval of the University Court, may from time to time determine.

Under this sub-section the Senate, with the approval of the University Court, has determined that each candidate for the Degree of M.B. and Ch.B. shall be required to attend a course of instruction in Mental Diseases, given by the University Lecturer or by a recognised teacher, consisting of not less than eighteen meetings. Six of these may be class-room lectures, and the others shall be demonstrations in the wards of an asylum for the insane.

9. The candidate must have attended a course of twenty-five meetings on Practical Pharmacy in a University or recognised School of Medicine, or have dispensed drugs for a period of three months in an hospital or dispensary, or in an establishment recognised by the Pharmaceutical Society, *i.e.* in *the establishment of any chemist and druggist or pharmaceutical chemist of Great Britain, or any pharmaceutical chemist of Ireland, who is registered in the*

---

[1] See note on page 290.

[2] On 7th October, 1892, the University Court recognised every General Hospital in the United Kingdom which accommodates not fewer than eighty patients, *and possesses a distinct staff of physicians and surgeons.*

books of the Pharmaceutical Society of Great Britain or of the Pharmaceutical Society of Ireland respectively.[1]

10. The candidate must have attended, for at least six months, by apprenticeship or otherwise, the out-practice of an hospital, or the practice of a dispensary, or of a physician or surgeon, or of a member of the London or Dublin Society of Apothecaries. He must have acted as clerk in the medical and dresser in the surgical wards of a public hospital; and must also have availed himself, to such an extent as may be required by the Senatus, with the approval of the University Court, of opportunities of studying at an hospital or dispensary *Post-mortem* Examinations, Fevers, Diseases of Children, Ophthalmology, or such other special departments as may from time to time be determined.

Under this sub-section the Senate, with the approval of the University Court, has determined as follows:—

A. Each candidate for M.B. and Ch.B. shall be required to attend—

1. Demonstrations in the *post-mortem* room of a recognised hospital, with practical instruction in making *post-mortem* examinations. The student must have attended during his curriculum at least twenty examinations.
2. A course of clinical instruction in Fevers, consisting of at least ten meetings in a hospital for infectious diseases containing not less than fifty beds.
3. A practical course of instruction in Ophthalmology of not less than twenty meetings. Six of these may be class-room lectures, and the others shall be for clinical instruction in the wards of a recognised hospital,[2] or in the wards of a hospital and in a dispensary both recognised for the purpose. The course shall include sufficient practical instruction in the methods of examining the eye.

B. Each candidate is also recommended to attend the following:—(*a*) Diseases of Children, (*b*) Diseases of the Ear, (*c*) Diseases of the Throat and Nose, and (*d*) Diseases of the Skin, in short practical courses of ten meetings.

N.B.—This is not to be understood as preventing a teacher in any speciality giving a fuller course to such students as may desire to follow out more fully any particular branch.

11. The candidate must have attended, under the superintendence of a registered medical practitioner, twelve[3] cases of labour, or such

---

[1] The explanatory words in italics are taken from Ordinance No. 54, Section II., issued by the Universities Commission on 18th July, 1894, which came into operation on 11th May, 1895, having been on that date approved by Her Majesty in Council.

[2] This means a hospital recognised *ad hoc*, after application to the University Court in each case.

[3] The Senatus, with the sanction, on 11th June, 1908, of the University Court, determined to substitute the word "twenty" for the word "twelve." Of the twenty cases twelve at least must be attended independently. [This applies to students who began their medical studies on or after 1st October, 1908.]

additional number as the Senatus, with the sanction of the University Court, may from time to time determine; or have attended for three months the practice of a lying-in hospital, or of the maternity department of a general hospital or other public charitable institution, and have conducted personally six, or such an additional number of cases of labour as the Senatus, with the approval of the University Court, may from time to time determine.

12. The candidate must have been properly instructed in Vaccination at a Public Vaccination Station, by a Public Vaccinator, authorised by the proper Government Authority to grant Certificates of Proficiency in Vaccination.[1]

13. No candidate for a degree shall be deemed to have attended a class as part of the curriculum necessary for that degree who does not present a certificate bearing not only that he has given regular attendance, but also that he has duly performed the work of the class.

VIII. With respect to the places and institutions at which the studies of the candidate may be prosecuted, the following regulations shall have effect:

1. Two of the five years of medical study must be spent in the University of Glasgow, each year of study including always the attendances specified in Section VII., sub-section 2.
2. The remaining three years may be spent in any University of the United Kingdom, or in any Indian, Colonial, or Foreign University recognised for the purpose by the University Court, or in such medical schools or under such teachers as may be recognised for the purpose by the University Court, each year of study during the first four years including always the attendances specified in Section VII., sub-section 2.
3. Of the subjects of study specified in Section VII., sub-section 4, not less than eight must be taken in the University of Glasgow, or (subject always to the provisions as to attendance contained in the immediately preceding sub-sections) in some other University of the United Kingdom, or in some Foreign or Colonial University entitled to confer the Degree of Doctor of Medicine recognised for the purpose by the University Court, or in a College incorporated with, or affiliated to a University entitled to confer the Degree of Doctor of Medicine recognised for the purpose by the University Court: Provided always that where in any of said subjects of study two or more courses are required, the taking of one of those courses shall constitute a taking of the subject for the purpose of this sub-section.
4. The remainder of such subjects of study may (subject always as aforesaid) be taken in such medical schools or under such teachers as may be recognised for the purpose by the University Court.
5. All candidates, not Matriculated Students of the University, availing themselves of the permission to attend the Lectures of

---

[1] The recognised Vaccine Departments in Glasgow are Western Infirmary and oyal Infirmary.

Extra-Academical Teachers in Glasgow, must, at the commencement of each year of such attendance, enrol their names in a book to be kept in the University for that purpose, paying a fee of the same amount as the Matriculation Fee paid by students of the University, and having, in respect of such payment, a right to the use of the Library of the University.

6. The fee for attendance, for purposes of graduation, on the courses of instruction of recognised Extra-Academical Teachers in Glasgow shall be not less than the amount exigible for the corresponding courses in the University.
7. The University Court shall not recognise as qualifying for examination in any of the subjects specified in Section VII., sub-section 4, the class of any teacher who is at the time a teacher of more than one of the said subjects, except in those cases where Professors in the University are at liberty to teach two subjects: Provided always that a Professor or other teacher in any endowed public College or institution, who by the terms of his appointment is required to teach more than one subject of medical study therein, may be recognised under sub-section 2 of this section, as a teacher of any one of the subjects which he teaches.
8. A teacher, attendance on whose course of instruction shall, before the date of the approval of this ordinance by her Majesty in Council, have been recognised for the purposes of graduation in the University, shall not require to obtain a new recognition from the University Court; and attendance on the course of instruction of every such teacher may continue to be recognised as heretofore.
9. It shall be in the power of the University Court, if it shall see cause, at any time to withdraw or suspend any recognition which it may have granted.

IX. In the University of Glasgow it shall be the duty of the Professors of the subjects specified in Section VII., sub-section 4 hereof (except Practical Anatomy and such other subjects as the Senatus, with the approval of the University Court, may from time to time determine), so to conduct the courses that Students may receive instruction sufficient for graduation in any one of the said subjects by attendance on one course of five or six months, or of two and a half or three months, as the case may be.[1]

X. If any candidate shall, before presenting himself for his Preliminary Examination, have attended in any University of the United

---

[1] Doubt being entertained as to the construction of this Section, the question was submitted to the Universities Commissioners, and evoked from them the following deliverance:—

It is not intended to require of the Professor a complete course of instruction by lectures during each session, or to limit the examinations for degrees to subjects which shall be discussed in the lectures of the Professor at the time that the student attended the course. The word "instruction," as used in this Section, is to be held to include lectures upon such parts of the subject as the Professor may be able to overtake, supplemented by directions as to the use of text-books or other sources of information for the remainder of the subject: and it is also intended that the examinations may be taken over the whole field, even when the Professor has not been able to include it all in his course of lectures.

Kingdom, or in any University or Institution specially approved, or under any Teacher specially recognised for the purpose by the University Court, a course or courses of instruction in Physics, Chemistry, Botany, or Zoology, equivalent in the judgment of the Senatus to the qualifying course in the same subject in the University of Glasgow, such attendance shall (notwithstanding anything hereinbefore ordained) be held as entitling him to be examined in these subjects; and if the candidate shall have attended such course or courses in each of the said subjects, he shall be held to have completed his first year of Medical Study: Provided always that the evidence of such attendance at such equivalent course or courses shall be presented to the Senatus at the time when the candidate presents himself for his Preliminary Examination; and the Senatus shall, if satisfied, grant a certificate to that effect: Provided also that *the provisions of this section shall not have effect except where the University Court shall allow their application after a report by the Senatus Academicus, setting forth special grounds therefor in the case of any candidate named in the report.*[1]

Professional Examination for the Degrees of Bachelor of Medicine and Bachelor of Surgery.

XI. Each candidate shall be examined both in writing and orally, and also clinically where the nature of the subject admits, in the following divisions, viz.:—*First*, in Botany, Zoology, Physics, and Chemistry; *Second*, in Anatomy, Physiology, and Materia Medica and Therapeutics; *Third*, in Pathology, and Medical Jurisprudence and Public Health; *Fourth*, in Surgery and Clinical Surgery, Practice of Medicine and Clinical Medicine, and Midwifery.

In subjects which admit of practical instruction, the examination shall be such as to test the practical acquirements of the candidate.

Provided always that if a candidate have obtained in a University of the United Kingdom, or other University specially recognised for the purpose by the University Court, a degree in Science or in Arts, granted in either case after a course of study and an examination in Botany, Zoology, Physics, and Chemistry, he shall be held to have passed his examinations in the said subjects.

Provided also that *if a candidate have completed in a University of the United Kingdom a course of study and passed an examination in Botany, Zoology, Physics, or Chemistry qualifying for a degree in Science or in Arts, he shall be held to have passed the examinations in such subject or subjects.*

If a candidate have obtained a degree in Science or in Arts in any University other than a University of the United Kingdom, granted in either case after a course of study and an examination in Botany, Zoology, Physics, or Chemistry, it shall be in the power of the University Court to exempt such candidate from the examinations in such subject or subjects:

---

[1] The proviso in italics is taken from Ordinance No. 74, Section V., issued by the Universities Commission on 18th July, 1894, which came into operation on 11th May, 1895, having been on that date approved by Her Majesty in Council.

[2] For Table of Fees and Dates of Examinations, see page 302.

Provided that the course of study and the standard of examination in each case are satisfactory in the judgment of the Senatus Academicus.[1]

XII. Candidates who profess themselves ready to submit to an examination in the subjects comprised in the first division, viz.:—Botany, Zoology, Physics, and Chemistry, may be admitted to examination in all or any two of these subjects at any examination held after they have attended a full course in each of the subjects professed.

XIII. Candidates who have passed their examination in the subjects comprised in the first division may be admitted to examination in the second division at the end of the third winter session.

Provided that candidates who so desire may postpone their examination in Materia Medica and Therapeutics until the close of the summer session following.

XIV. Candidates who have passed their examinations in the subjects comprised in the first and second divisions may be admitted to examination in the third division at the end of the fourth winter session.

Provided that candidates who so desire may postpone their examination in Medical Jurisprudence and Public Health until the close of the summer session following.

XV. Candidates who have passed their examinations in the subjects comprised in the first, second, and third divisions may be admitted to examination in the fourth or final division when they have completed the fifth year of study.

XVI. If any candidate at these examinations be found unqualified in one or more subjects he shall not again be admitted to examination unless he has pursued his medical studies for such time, and subject to such conditions, as the Faculty of Medicine may prescribe.

Under this section the Faculty of Medicine, with the sanction of the Senate, has laid down the following rule: No student, who in the Final Professional Examination has been found unqualified in any subject, shall be re-admitted to examination without furnishing evidence of having further studied that subject for such a period as the Examiners may fix.

XVII. If any candidate at these examinations be found to have passed in one or more subjects with sufficient merit, he shall not be liable to re-examination in such subject or subjects, although he may have been found unqualified in a subject or subjects comprised in the same division as hereinbefore specified.

XVIII. Every candidate must deliver, on or before such day as the Senatus may from time to time determine, to the Dean of the Faculty of Medicine, a declaration, in his own handwriting, that he has completed his twenty-first year, or that he will have completed it on or before the day of graduation, and that he will not be, on the day of graduation, under articles of apprenticeship to any surgeon or other master.

---

[1] The words in italics are taken from Ordinance No. 54, Sections III. and IV., issued by the Universities Commission on 18th July, 1894, which came into operation on 11th May, 1895, having been on that date approved by Her Majesty in Council.

XIX. After the candidate has satisfied the Examiners, the Dean of the Faculty of Medicine shall lay the proceedings before the Senatus, by whose authority the candidate shall be admitted, on such day as the Senatus may from time to time appoint, to the Degrees of Bachelor of Medicine and Bachelor of Surgery, on payment of the required fees.[1]

XX. Candidates for graduation shall produce evidence of their having conformed to the regulations which were in force at the time they commenced their medical studies: Provided that any student who began his medical studies before 1st January, 1892, shall be entitled to graduate under the system in force before or after that date, according as he shall comply with the regulations in force in the University before[2] or after that date.

PROFESSIONAL EXAMINATION FOR THE DEGREE OF DOCTOR OF MEDICINE.

XXI. 1. Subject to the conditions hereinafter specified, the Degree of Doctor of Medicine shall be conferred on any candidate who has obtained the Degrees of Bachelor of Medicine and Bachelor of Surgery of the University of Glasgow, and is of the age of twenty-four years or upwards, and has produced a certificate of having been engaged subsequently to having received the Degrees of Bachelor of Medicine and Bachelor of Surgery for at least one year in attendance in the Medical Wards of an Hospital, or in scientific work bearing directly on his profession, such as is conducted in the Research Laboratories of the University, or in the Military or Naval Medical Services, or for at least two years in Practice other than Practice restricted to Surgery.

2. Each candidate for the Degree of Doctor of Medicine shall be required to pass an examination in Clinical Medicine and in such of its special departments as the Senatus, with the approval of the University Court, by Regulations framed from time to time, shall determine; and he may present himself for examination in Clinical Medicine at any period of examination subsequent to one year after he has received the Degrees of Bachelor of Medicine and Bachelor of Surgery.

Under this sub-section the following regulations have been framed by the Senatus, and approved by the University Court:—The Examination in Clinical Medicine for the Degree of Doctor of Medicine shall for each candidate consist of a written Report and Commentary, with any oral questions that may be considered desirable, upon at least three Medical cases. In the selection of the cases, special regard shall be given to the opportunities they afford for testing the candidate, not only in the ordinary methods of clinical investigation, but also in the more advanced methods requiring practical knowledge in the applications of the ophthalmoscope and laryngoscope, in the chemical and microscopical examination of excreta, the quantitative determination and microscopic characters of the chief constituents of blood possessing clinical importance, the recording by instruments of the condition of the circulation, the applications of electricity, etc.

---

[1] For Table of Fees and Dates of Examination, see page 302.

[2] These regulations may be found at pp. 188-192 of the *University Calendar* for session 1895-96, and in the *Calendars* for preceding sessions.

Provided always that one of the cases on which a candidate is examined may, if the candidate on entering his name for the Examination declare a wish to that effect, be from one of the following departments, namely, Diseases of Women, Diseases of Children, Mental Diseases, Zymotic Diseases, Diseases of the Eye, Diseases of the Throat, Diseases of the Ear, Diseases of the Skin. Should the candidate specialise in one of these departments he will be expected to show high proficiency in it.

The examinations for M.D. will be held in the month of October, each Session. Candidates must enter their names and lodge their Theses with the Assistant Clerk (Matriculation Office) on or before 1st June.

3. Each candidate for the Degree of Doctor of Medicine shall submit for the approval of the Faculty of Medicine a Thesis on any branch of knowledge comprised in the second, third, or fourth examinations for the Degrees of Bachelor of Medicine and Bachelor of Surgery, which he may have made a subject of study after having received those Degrees, excepting subjects which are exclusively Surgical; and the Thesis, accompanied by a declaration signed by the candidate, that the work has been done and the Thesis composed by himself,[1] shall be lodged with the Dean of the Faculty of Medicine (at the Matriculation Office) on or before a date to be fixed by the Senatus (1st June).

4. A Bachelor of Medicine and Bachelor of Surgery, who produces to the Senatus satisfactory evidence of his intention of entering within twelve months after obtaining such degrees on the practice of his profession in a British Possession or Colony, or in a foreign Country, may, under Regulations to be framed by the Senatus, be admitted to the examination in Clinical Medicine at any period of examination after he has received such degrees; but the Degree of Doctor of Medicine shall not be conferred on him unless he shall produce a certificate that, subsequently to having received the Degrees of Bachelor of Medicine and Bachelor of Surgery, he has been engaged for at least one year in attendance in the Medical Wards of an Hospital, or in scientific work bearing directly on his profession, such as is conducted in the Research Laboratories of the University, or in the Naval or Military Medical Services, or for at least two years in Practice which has not been exclusively surgical, and unless his Thesis in the judgment of the Faculty of Medicine is of exceptional merit.

---

[1] The Faculty of Medicine give notice that no Thesis will be approved unless it gives evidence of original observation, or, if it deal with the researches of others, gives a full statement of the literature of the question, with accurate references and critical investigation of the views or facts cited: mere compilations will in no case be accepted.

The Senate, on 3rd June, 1909, resolved as follows:—In future a Thesis to be eligible as a Thesis for the Degree of M.D. shall be a dissertation written for the purpose, provided that the results of original observations already published in medical or scientific journals or in the transactions of learned societies or otherwise may be accepted in place of such a dissertation; as heretofore, the Thesis as submitted shall become the property of the University, and shall be deposited in the University Library.

Bachelors of Medicine and Masters of Surgery of the University of Glasgow, who have graduated under the regulations in force before the fifth day of August, 1892, may proceed to the Degree of Doctor of Medicine under the provisions of this section, in the same manner as if they held the Degree of Bachelor of Surgery.[1]

PROFESSIONAL EXAMINATION FOR DEGREE OF MASTER OF SURGERY.

XXII. 1. Subject to the conditions hereinafter specified the Degree of Master of Surgery shall be conferred on any candidate who has obtained the Degrees of Bachelor of Medicine and Bachelor of Surgery of the University of Glasgow, and is of the age of twenty four years or upwards, and has produced a certificate of having been engaged, subsequently to his having received the Degrees of Bachelor of Medicine and Bachelor of Surgery, for at least one year in attendance in the Surgical Wards of an Hospital, or in scientific work bearing directly on his profession, such as is conducted in the Research Laboratories of the University, or in the Military or Naval Medical Services, or for at least two years in practice other than practice restricted to Medicine.

2. Each candidate for the Degree of Master of Surgery shall be required to pass an examination in the following subjects:—Surgical Anatomy, Operations upon the dead body, and Clinical Surgery, and in such of the special departments of Clinical Surgery as the Senatus, with the approval of the University Court, by Regulations framed from time to time, may determine; and he may present himself for examination in these subjects at any period of examination subsequent to one year after he has received the Degrees of Bachelor of Medicine and Bachelor of Surgery.

Under this sub-section the following regulations have been framed by the Senatus, and approved by the University Court:—The Examination in Clinical Surgery for the Degree of Master of Surgery shall for each candidate consist of a written Report and Commentary, with any oral questions that may be considered desirable on at least three Surgical cases.

Provided that one of the three Surgical cases on which a candidate is examined shall, if the candidate on entering his name for the Examination declare a wish to that effect, be from one of the following departments, namely, Surgical Diseases of Women, Diseases of the Throat, Diseases of the Eye, Diseases of the Ear. Should the candidate specialise in one of these departments he will be expected to show high proficiency in it.

3. Each candidate for the Degree of Master of Surgery shall submit for the approval of the Faculty of Medicine a Thesis on any branch of knowledge comprised in the second, third, or fourth Examinations for the Degrees of Bachelor of Medicine and Bachelor of Surgery, which he may have made a subject of study after having received those Degrees, excepting subjects that are exclusively medical; and the Thesis, accompanied by a declara-

---

[1] Taken from Ordinance No. 51, Section VI., which was issued by the Universities Commissioners on 18th July, 1894, and came into operation on 11th May, 1895, having on that date been approved by Her Majesty in Council.

tion signed by the candidate that the work has been done and the Thesis composed by himself,[1] shall be lodged with the Dean of the Faculty of Medicine on or before a date to be fixed by the Senatus.

4. A Bachelor of Medicine and Bachelor of Surgery who produces to the Senatus satisfactory evidence of his intention of entering, within twelve months after obtaining such degrees, on the practice of his profession in a British Possession or Colony, or in a foreign Country, may, under Regulations to be framed by the Senatus, be admitted to examination in the subjects specified in Sub-section 2 of this section, at any period of examination after he has received such degrees; but the Degree of Master of Surgery shall not be conferred on him unless he shall produce a certificate that, subsequently to having received the Degrees of Bachelor of Medicine and Bachelor of Surgery, he has been engaged for at least one year in attendance in the Surgical Wards of an Hospital, or in scientific work bearing directly on his profession, such as is conducted in the Research Laboratories of the University, or in the Naval or Military Medical Services, or for at least two years in Practice which has not been exclusively medical, and unless his Thesis, in the judgment of the Faculty of Medicine, is of exceptional merit.

Fees.

XXIII. The fee to be paid for the Degrees of Bachelor of Medicine and Bachelor of Surgery shall be twenty-two guineas, and the proportion of this sum to be paid by a candidate at each division of the examination shall be regulated from time to time by the University Court. The fee to be paid for the Degree of Doctor of Medicine shall be ten guineas, exclusive of any stamp duty which for the time may be exigible. The fee to be paid for the Degree of Master of Surgery shall be ten guineas.

Examiners.

XXIV. The Examiners for graduation in Medicine in the University of Glasgow shall be the Professors in that University, together with such Lecturers in the University and such additional Examiners, to be appointed by the University Court, as the University Court shall deem necessary: Provided that the Court shall make such provisions as will ensure that every candidate shall be examined in each subject by at least two Examiners, of whom one shall not be a Professor or Lecturer in the University. The examinations shall be conducted in writing and orally and also clinically, when the nature of the subject admits, under regulations framed by the Senatus subject to the approval of the University Court.

Distinctions attainable by Students and Graduates of Medicine.

Candidates who have shown special merit in any subject or subjects at any of the Professional Examinations will be announced as having passed in such subject or subjects "with distinction."

Candidates who have shown special merit as indicated by the aggregate results of the four Professional Examinations will be announced, at the time of Graduation, as having obtained Commendation or Honours, according to the degree of excellence.

---

[1] See footnote on page 298.

In connection with the Higher Degrees in Medicine and Surgery three grades of distinction are also awarded, viz., Commendation, High Commendation, and Honours. The Bellahouston Trustees have put it in the power of the University to award three Gold Medals yearly to those who, having gained Honours, are pronounced by the Senate on the Report of the Faculty of Medicine worthy of this highest distinction for the excellence of their Theses.

For Straits Settlements Gold Medal, see under Prizes.

Graduates in Medicine or Surgery to whom Honours are awarded for their Theses are requested to publish these Theses in Journals or otherwise, and to supply copies to the University for exchange with other Universities.

GRADUATION.

The terms for conferring Medical and Surgical Degrees in session 1909-10 are 18th November, 1909, and 18th April, 1910.

Candidates proceeding to graduation, if not already Members of the General Council of the University, are required by the Act, 44 and 45 Vict., ch. 10, to pay to the Registrar of the General Council the Registration Fee, and furnish to him the particulars required for their enrolment in the General Council. This should in all cases be done at least two clear days before the day of graduation.

In accordance with the Promissory Oaths Act, 1868, a Declaration in the following English form is now substituted for the Latin Oath[1] formerly required to be taken and subscribed by every candidate on graduation :—

I make this solemn declaration in virtue of the Provisions of the Promissory Oaths Act, 1868, substituting a Declaration for Oaths in certain cases.

I do solemnly and sincerely declare, that, as a Graduate in Medicine of the University of Glasgow, I will exercise the several parts of my profession, to the best of my knowledge and abilities, for the good, safety, and welfare of all persons committing themselves, or committed to my care and direction ; and that I will not knowingly or intentionally do anything or administer anything to them to their hurt or prejudice, for any consideration, or from any motive whatever. And I further declare, that I will keep silence as to anything I have seen or heard while visiting the sick which it would be improper to divulge.

REGISTRATION OF MEDICAL PRACTITIONERS.

Graduates should register as soon as possible with the Branch Registrar for Scotland, at 54 George Square, Edinburgh. Fee £5 1s. Additional qualifications, £1 each. Forms of application may be had from the Assistant-Clerk (Matriculation Office).

---

[1] *The Oath was in these words*:—Testor Deum omnipotentem me hoc Iusjurandum pro virili servaturum ; Victus rationem aegris commodam et salutarem praescripturum : nullius intercessione nec sponte noxium pharmacum cuiquam propinaturum ; sed sancte et caste vitam artemque meam instituturum . In quascunque domos intravero ad aegrotantium duntaxat salutem ingressurum et ab omni injuria inferenda procul futurum : Quaecunque inter curandum videro audiverove siquidem ea efferre non expediat silentio suppressurum.

TABLE OF EXAMINATIONS FOR DEGREES IN MEDICINE TO BE HELD DURING SESSION 1909-10.

Fees.	Names to be given in and Fees paid to Assistant-Clerk [1] (Matriculation Office). Date.[2]	Dates of Written Examinations and Hours at which the different Papers will be set. Printed Schedules with detailed instructions for filling up may be obtained from the Assistant-Clerk [1] (Matriculation Office).				
Under the Old Regulations the Fee for each Professional Examination is £5 5s.; under the New, the Fees are—First, £6 6s.; Second, £6 6s.; Third, £5 5s.; Fourth, £5 5s.	7th September, 1909,	1909. Mon., 27th Sept.,	Botany	9—11 a.m.	Chemistry	2—4 p.m.
		Mon., 27th ,,	Materia Medica	9—11 a.m.		
		Tues., 28th ,,	Zoology	9—11 a.m.	Physics	12—2 p.m.
		Tues., 28th ,,	Anatomy	9—11 a.m.	Physiology	12—2 p.m.
		Tues., 28th ,,	- - -	- - -	Pathology	12—2 p.m.
		Wed., 29th ,,	Medical Jurisprudence	9—11 a.m.	Public Health	12—2 p.m.
	23rd February, 1910,	1910. Wed., 18th Mar.,	Practice of Medicine	10—12 noon.	Surgery	2—4 p.m.
		Thurs., 19th ,,	Midwifery	10—12 noon.		
		(Clinical and other examinations will follow at dates to be arranged.)				
	7th March, 1910,	1910. Mon., 21st March,	Zoology	9—11 a.m.	Chemistry	2—4 p.m.
		Mon., 21st ,,	Materia Medica	9—11 a.m.		
		Tues., 22nd ,,	Botany	9—11 a.m.	Physics	12—2 p.m.
		Tues., 22nd ,,	Anatomy	9—11 a.m.	Physiology	12—2 p.m.
		Tues., 22nd ,,	- - -	- - -	Pathology	12—2 p.m.
		Wed., 23rd ,,	Medical Jurisprudence	9—11 a.m.	Public Health	12—2 p.m.

---

[1] For Women Students, Miss Melville, Queen Margaret College.

[2] When names are not given in and fees are not paid on or before the stated dates, a late Entry Fee of Ten Shillings must be paid before the candidate can be enrolled for examination. A candidate is not held to be enrolled for examination until his name is entered, the fee paid, and all the necessary Certificates, etc., lodged. Late Entry Fees will not be accepted less than three days before the date of examination. Every candidate must matriculate at the University for the session in which he enters for professional examination or for graduation.

For Dates in regard to Medical Preliminary Examination, see page 217.

5.—GRADUATION IN LAW.

Two Degrees in Law are conferred, after examination, by the University of Glasgow, viz., Bachelor of Laws (LL.B.) and Bachelor of Law (B.L.).

By regulation of the Faculty of Advocates, any one who has obtained the Degree of LL.B. from a Scottish University is held qualified in General Scholarship and Law with a view to admission to the Bar, without examination or other evidence of such qualification, except as stated on page 134.

By the Law Agents Act, 36 and 37 Vict., c. 63, the holder of a degree in Law or in Arts of a University in Great Britain or Ireland, granted after examination, is qualified to apply for admission as a Law Agent after an apprenticeship of three years, instead of five, as required in the ordinary case; and by Act of Sederunt of 20th July, 1878, any applicant who holds the Degree of LL.B. or of B.L. of any Scottish University is exempted from any examination in Law before the Examiners of Law Agents, excepting only on forms of Process, Civil and Criminal, and a similar provision is contained in the Act of Sederunt of 18th March, 1893. (See also page 135.)

Degree of LL.B.

The following are the provisions of Ordinance No. 39, General No. 11, which, having been approved by Her Majesty in Council of 28th May, 1894, applies to all students who, after 30th September, 1894,[1] began their course of study with a view to graduation in Law:—

I. No one shall be admitted to examination as a candidate for the Degree of Bachelor of Laws (LL.B.) unless he be a graduate in Arts of one of the Universities of the United Kingdom; or of any Foreign or Colonial University specially recognised for the purpose by the University Court.

II. The course of study in Law for the Degree of Bachelor of Laws shall include the following subjects:—

(1) Jurisprudence, General or Comparative, during a course of not less than forty lectures.
(2) The Law of Nations or Public International Law, during a course of not less than forty lectures.
(3) Civil Law during a course of not less than eighty lectures.
(4) Law of Scotland, or Law of England, during a course of not less than eighty lectures.
(5) Constitutional Law and History, during a course of not less than eighty lectures.
(6) Conveyancing, during a course of not less than eighty lectures; or Political Economy, or Mercantile Law, during a course of not less than eighty lectures.
(7) Any two of the following subjects, namely:—International Private Law, Political Economy, Administrative Law, and Forensic Medicine; in each case during a course of not less than forty lectures.

---

[1] Students who began their course previous to 1894 may qualify themselves for graduation in Law under the old regulations, which are given at pp. 227-229 in the *University Calendar* for 1900-1901 and in the *Calendars* for preceding sessions.

III. (1) The course of study necessary for the Degree of Bachelor of Laws shall extend over three academical years, one of which at least must be spent in the University in which the candidate intends to graduate, the other two may have been spent in any other University or School of Law specially recognised by the University Court.

(2) No candidate for a degree shall be deemed to have attended a class as part of the course of study necessary for that degree who does not present a certificate bearing not only that he has given regular attendance, but also that he has duly performed the work of the class.

IV. Candidates must undergo examination in the subjects prescribed in Section II. hereof; and they must pass at one examination in at least two of those subjects. Before presenting themselves in any subject the candidates must have attended the requisite course of instruction in such subject. Candidates who have passed an examination for another degree in any of the said prescribed subjects in the same University may be exempted from examination in such subject or subjects, provided that the Examiners are satisfied that the previous examination in such subject or subjects has been passed on a sufficiently high standard.

V. Every candidate for the Degree of Bachelor of Laws shall be examined both orally and in writing on each of the subjects in the course of study above prescribed in which he presents himself for examination.

VI. (1) Distinction may be awarded to candidates who have displayed exceptional merit in their examinations.

(2) For the Degree of Bachelor of Laws a diploma shall be given, setting forth the subjects in which the candidate has passed, and the distinction (if any) he has attained.

VII. The Examiners shall be the Professors of or Lecturers on the subjects included in the said examinations, and additional Examiners appointed by the University Court. The mode of conducting the examination shall be fixed from time to time by the Senatus Academicus.

VIII. Every student who at the time when this ordinance shall come into operation shall have completed a part of his course with a view to graduation as Bachelor of Laws in any Scottish University, under regulations hitherto in force in that University, and shall thereafter complete his course of study in conformity with such regulations, may become a candidate for the Degree of Bachelor of Laws without complying with the provisions of this ordinance.

IX. Ordinance numbered 75 of the Commissioners under the Universities (Scotland) Act, 1858, is hereby repealed, in so far as it is inconsistent with this ordinance.

X. This ordinance shall come into force at the beginning of the first academical year after the date on which it is approved by Her Majesty in Council. [Approved on 28th May, 1894.]

Degree of B.L.

The following are the provisions of Ordinance No. 40, General No. 12, which, having been approved by Her Majesty in Council on 28th May, 1894, applies to all students who, after 30th September, 1894, began their course of study with a view to graduation in Law.

I. No one shall be admitted to examination as a candidate for the Degree of Bachelor of Law (B.L.) unless he be a graduate in Arts of one of the Universities of the United Kingdom, or of any Foreign or Colonial University specially recognised for the purpose by the University Court; or until he shall have passed—

A. The Preliminary Examination in the Faculty of Arts, or its equivalent, as specified in the Arts Ordinance (Regulations for Degrees in Arts); and

B. An Examination in one of the Scottish Universities, to be conducted by the Examiner in Arts, in the following subjects, on the standard of examination for the Ordinary Degree of Master of Arts:—

(1) Logic and Psychology; or, in the option of the candidate, Moral Philosophy.

(2) Latin.

(3) One additional Arts subject, not being one of those which belong also to the Faculty of Law.

And he must have studied at least one of these subjects in a full course in a Scottish University, or an equivalent course in another University approved by the University Court.

II. The course of study in Law necessary for the Degree of Bachelor of Law shall include the following subjects.—

1. Civil Law, during a course of not less than eighty lectures;[1] or a half course in Civil Law where in any University a full course is not available: Provided that in the latter case, candidates who are not already graduates in Arts shall be required to take in addition a course in such subject in Arts as may be sanctioned by the Senatus Academicus, or a half course in one or other of the following branches of Law:—

(*a*) Jurisprudence, General or Comparative.
(*b*) The Law of Nations, or Public International Law.
(*c*) Constitutional Law and History.
(*d*) International Private Law.
(*e*) Mercantile Law.
(*f*) Administrative Law.

2. Law of Scotland, during a course of not less than eighty lectures.

3. Conveyancing, during a course of not less than eighty lectures.

4. Forensic Medicine, during a course of not less than forty meetings of the class; or, in the option of the candidate, a half course in one of the branches of Law specified in Sub-section 1 of this section[1] if not already taken.

III. (1) The course of study in Law necessary for the Degree of Bachelor of Law shall extend over two academical years.

(2) No candidate for a degree shall be deemed to have attended a class as part of the course of study necessary for that degree who does not present a certificate bearing not only that he has given regular attendance, but also that he has duly performed the work of the class.

(3) The candidate may prosecute his studies during the prescribed two years in one Scottish University, or in different Scottish Universities, or in a Scottish University and a University or School of Law specially recognised by the University Court; but one at least of these years must

---

[1] The remainder of this sub-section does not apply to the University of Glasgow, which provides a full course in Civil Law.

have been spent, and all the examinations in the subjects mentioned in the preceding section must have been passed at the University in which he intends to graduate.

IV. The candidate for the Degree of Bachelor of Law must undergo examination and pass in the four or more subjects selected by him; but he may present himself for examination in one subject or group of subjects at a time, provided that he has completed the course of study for such subject or group of subjects, and provided also that in that case a higher standard of proficiency shall be exacted.

V. Every candidate for the Degree of Bachelor of Law shall be examined, both orally and in writing, on each of the subjects in the course of study above prescribed, in which he presents himself for examination.

VI. (1) Distinction may be awarded to candidates who have displayed exceptional merit in their examinations.

(2) For the Degree of Bachelor of Law a diploma shall be given, setting forth the subjects in which the candidate has passed, and the distinction (if any) he has attained.

VII. The Examiners shall be the Professors of and Lecturers on the subjects included in the said examinations, and additional Examiners appointed by the University Court. The mode of conducting the examinations shall be fixed from time to time by the Senatus Academicus.

VIII. Every student who at the time when this ordinance shall come into operation shall have completed a part of his course with a view to graduation as a Bachelor of Law in any Scottish University under regulations hitherto in force in that University, and shall thereafter complete his course of study in conformity with such regulations, may become a candidate for the Degree of Bachelor of Law without complying with the provisions of this ordinance.

IX. Ordinance numbered 75 of the Commissioners under the Universities (Scotland) Act, 1858, is hereby repealed, in so far as it is inconsistent with this ordinance.

X. This ordinance shall come into force at the beginning of the first academical year after the date on which it is approved by Her Majesty in Council. [Approved on 28th May, 1894.]

SUBJECTS OF EXAMINATION.

The examinations for LL.B. and B.L. in session 1909-10 will embrace the following books and subjects, viz.: —

In Civil Law.—Institutes of Justinian (Ed. Moyle or Sandars) and the Class Lectures; also Dig., Lib. XVIII., Tit. I.—translated and annotated by Mackintosh—Roman Law of Sale.

In the Law of Scotland.—In addition to the Class Lectures, the books recommended are Bell's Principles of the Law of Scotland, and Erskine's Principles of the Law of Scotland. In Criminal Law, Macdonald's Criminal Law and Erskine's Principles. Recent editions of the works mentioned should be used.

In Conveyancing.—In addition to the Class Lectures, the books recommended are Duff's Feudal Rights, with Supplement; Lectures on Conveyancing, by Menzies; Lectures on Conveyancing, by A. M. Bell; and Craigie's Statutes.

In Mercantile Law.—In addition to the Class Lectures, the books recommended are Goudy on Bankruptcy; Carver on Carriage by Sea, Part I. and Part III.; Hamilton on Bills of Exchange; Palmer's Company Law; Bell's Principles, 10th edition, Book I.; Chalmers on Marine Insurance.

In Jurisprudence, General or Comparative.—Holland's Jurisprudence; Maine's Ancient Law; Kant's Philosophy of Law (Hastie's translation).

In the Law of Nations, or Public International Law.—In addition to the Class Lectures the books recommended are Hall's International Law (5th ed.), or Lawrence's International Law. Candidates are expected to show a general acquaintance with the history of Modern Europe. The cases referred to in the lectures should be studied in the collections by Pitt Cobbett or Scott.

NOTE.—Candidates under the old regulations for LL.B. are required to sit also at the papers on Jurisprudence and International Private Law.

In International Private Law.—In addition to the Class Lectures and the Scots cases therein mentioned, Rattigan's Private International Law. For reference Nelson's *Leading Cases*, Dicey's *Conflict of Laws*, and Westlake's *Private International Law* (4th ed.) will be found useful.

In Constitutional Law and History.—(1) The Outlines of English Constitutional History; (2) Existing Constitutional Law. In addition to the Class Lectures the books recommended are—Taswell-Langmead's English Constitutional History; Dicey's Law of the Constitution.

In Forensic Medicine.—Signs of Death with relation to Crime; Proximate Causes of Death; Medico-legal Forms of Death; Identity; Survivorship; Wounds; Blood-stains and their Detection; Insurance; Sexual Crimes:—Rape and Criminal Abortion; Pregnancy in its Medico-legal aspects; Infanticide and Concealment of Pregnancy; Divorce in its Medico-legal relations; Legitimacy and Paternity; Evidence of Poisoning; Poisoning by Arsenic, Prussic Acid, and Strychnia; Alcoholism in its Medico-legal aspects; Insanity.

In Political Economy and other Arts Subjects.—The subjects of examination for the Degree of M.A.

No candidate for the Degree of B.L. is admitted to an examination in Law subjects until he has passed in all the subjects of the preliminary examinations, and not fewer than two subjects in Law can be taken up at one examination, except in case of candidates for the Degree of B.L. under the new regulations.

TABLE OF EXAMINATIONS FOR DEGREES IN LAW, TO BE HELD DURING SESSION 1909-10.

Fee.[1]	Names to be given in and Fees paid to Assistant-Clerk (Matriculation Office). Date.[2]	Subjects of Examination.	DATES OF WRITTEN EXAMINATIONS AND HOURS AT WHICH THE DIFFERENT PAPERS WILL BE SET.	
			September-October, 1909.	March, 1910.
£1 1s. on each entry for Examination, and balance, if any, before Graduation. Total Fees—LL.B. £6 6s., B.L. £5 5s.	3rd Sept., 1909, or 4th March, 1910,	Constitutional Law,	Wed., 29th Sept., 9—12 noon.	Sat., 19th March, 9—12 noon.
		Civil Law,	,, ,, ,, 2—5 p.m.	,, ,, ,, 2—5 p.m.
		Scots Law,	Thurs., 30th ,, 9—12 noon.	Mon., 21st ,, 9—12 noon.
		Public Internat. Law,	,, ,, ,, 2—5 p.m.	,, ,, ,, 2—5 p.m.
		Jurisprudence,	Friday, 1st Oct., 9—12 noon.	Tues., 22nd ,, 9—12 noon.
		Internat. Private Law,	,, ,, ,, 2—5 p.m.	,, ,, ,, 2—5 p.m.
		Political Economy,	,, ,, ,, 6—9 p.m.	
		Conveyancing,	Sat., 2nd ,, 9—12 noon.	Wed., 23rd ,, 9—12 noon.
		Mercantile Law,	,, ,, ,, 2—5 p.m.	,, ,, ,, 2—5 p.m.
		Forensic Medicine,	Monday, 4th ,, 9—11 a.m.	Thurs., 24th ,, 9—11 a.m.

For Dates of the Preliminary Examination and of the Examinations in Arts subjects necessary for B.L., see pp. 217 and 246—249.

---

[1] Under the old regulations the fee for LL.B. is £5 5s.; for B.L., £3 3s.

[2] When names are not given in and fees are not paid on or before the stated dates, a late Entry Fee of Ten Shillings must be paid before the candidate can be enrolled for examination. A candidate is not held to be enrolled for examination until his name is entered, the fee paid, and all the necessary certificates, etc., lodged. Late Entry Fees will not be accepted less than three days before the date of Examination.

6. GRADUATION IN DIVINITY

Degree of Bachelor of Divinity.

In Ordinance No. 63 the Universities Commission laid down the following regulations for this degree :—

I. No one shall be admitted to examination[1] as a candidate for the Degree of Bachelor of Divinity (B.D.) in any University unless he be (1) a graduate in Arts of that University, and have taken a complete Theological Course in a Scottish University or Universities, or in an institution or institutions specially recognised for the purpose of this ordinance by the University Court, or partly in a Scottish University or Universities and partly in such institution or institutions ;[2] or (2) a graduate in Arts of any Scottish University or other University specially recognised as aforesaid, and have completed his Theological Course, of which not less than two years' attendance shall have been given in the University in which he presents himself for examination

II. The examination shall in all cases be conducted at the seat of the University granting the degree, and the Examiners shall be the Professors of or Lecturers on the subjects included in the examinations, and two additional Examiners appointed by the University Court. The mode of conducting the examination shall be fixed from time to time by the Senatus Academicus.[1]

III. Every student who at the time when this ordinance shall come into operation shall have completed a part of his Theological Course with a view to graduation as Bachelor of Divinity in any Scottish University, under regulations hitherto in force in that University, and shall thereafter complete his course of study in conformity with such regulations, may become a candidate for the Degree of Bachelor of Divinity without complying with the provisions of this ordinance.

IV. The Degree of Bachelor of Divinity shall in no case be conferred on persons who have not complied with the conditions hereinbefore set forth, and shall not be conferred *honoris causa tantum*.

This degree is conferred on such qualified candidates as have satisfied the Examiners of their proficiency in the following departments, viz. :—

I. Hebrew, New Testament Exegesis, and Apologetics.

II. Divinity, Church History, and Biblical Criticism.

---

[1] Ordinance No. 154 gives the Senatus Academicus power to admit candidates to examination in not more than three of the subjects, after the completion of the second session of attendance on their Theological course.

[2] The University Court has recognised *pro tanto* every Theological College in the United Kingdom having a distinct staff of teachers for the separate subjects, in so far as the Theological course is subsequent to the Arts course.

The following regulations were adopted by the Senate on 21st March, 1907:—

1. Candidates who have completed the second year of their Theological studies, subsequent to the termination of their course in Arts, may be admitted to examination in the First Department.

2. Candidates who (*a*) have passed their examination in the subjects comprised in the First Department, and (*b*) have completed their Theological Course, may be admitted to examination in the Second Department.

3. Candidates for the First Department shall be examined in the subjects prescribed for the academic year in which the examination takes place.

4. Candidates for the Second Department shall be examined in Spring in the subjects prescribed for the academic year in which the examination takes place; or in Autumn in the subjects prescribed for the academic year immediately preceding.

The scheme of examination for session 1909-1910 will be as follows:

I. FIRST DEPARTMENT—

(*a*) *Hebrew.*—(1) Deuteronomy, ch. i.—xii.; (2) Isaiah, ch. xl.—lv.; (3) Psalms xc.—cvi.; (4) Portions of unpointed Hebrew to be punctuated and translated; (5) Translations from English into Hebrew.

Books which may be consulted:

(1) and (2) The relative Commentaries in the Cambridge Bible, in the International Critical Commentary (Driver), in the Expositor's Bible (G. A. Smith), in the Keil and Delitzsch Series, and in the Century Bible; the Polychrome Bible; Driver's Introduction; and the relative articles in the Encyclopaedia Biblica and Hastings' Dictionary of the Bible; also König's *Exiles' Book of Consolation*, and Cox's *Isaiah*; (3) Commentaries by Briggs, Delitzsch, Perowne, Kirkpatrick (Cambridge Bible), and Cheyne; the Polychrome Bible; Driver's *Parallel Psalter*; Robertson's *Poetry and Religion of the Psalms*, and Cheyne's *Origin of the Psalter*; (4) and (5) Müller's or Davidson's *Hebrew Syntax*; Robertson's *Hebrew Exercises.*

(*b*) *New Testament Exegesis.*—(1) Introduction to the Acts of the Apostles; (2) Exegesis of Mark viii. 27—xvi. 20, with critical comparison of the parallel passages in Matthew and Luke; (3) Introduction to, and Exegesis of, the Epistle of James.

Books which may be consulted:

(1) Lekebusch, *Die Composition und Entstehung der Apostelgeschichte*; Spitta, *Die Apostelgeschichte*; (2) The relative

Commentaries of Meyer, De Wette, Morison, or Alford; Bleek, *Synoptische Erklarung der drei ersten Evangelien*; (3) The Commentaries of Alford or Mayor.

(*c*) *Apologetics.*—(i) Philosophy and History of Religion; (2) Christian Apologetics; (3) Butler's *Analogy*.

Books which may be consulted:

(1) Fairbairn, *Philosophy of the Christian Religion*; Caird, *Introduction to the Philosophy of Religion*, and *Fundamental Ideas of Christianity*; Menzies, *History of Religion*. (2) Bruce, *Apologetics*; Fisher, *Grounds of Theistic and Christian Belief*; Mair, *Studies in the Christian Evidences*. (3) The *Analogy* of Butler, ed. by Joseph Angus (Rel. Tract Soc.); Gladstone's *Butler*.

II. SECOND DEPARTMENT—

(*a*) *Divinity.*—(1) Doctrine of the Church and Sacraments; (2) Doctrine of the Future (Eschatology); (3) Christian Ethics.

Books which may be consulted:—

Generally, any manual of Systematic Theology at the relative points (*e.g.* Macpherson, W. Adams Brown, or Agar Beet).

Specially, (1) Bannerman's *Scripture Doctrine of the Church*; Allen's *Christian Institutions*; (2) Salmond's *Christian Doctrine of Immortality*; (3) Newman Smyth's *Christian Ethics*. Also, Muirhead's *Eschatology of Jesus*; Kennedy's *St. Paul's Conceptions of the Last Things*.

(*b*) *Church History.*—The Ecclesiastical History of the period from the Edict of Milan to the Coronation of Charlemagne (A.D. 313-800), including:—

The Emperors Constantine, Julian, Jovian: Empire divided—Valens, Valentinian I.; Gratian. Donatism and the Council of Arles. Arianism and the Council of Nicaea A.D. 325 (First Oecumenical Council), Councils of Sardica and Ariminum; S. Athanasius, S. Basil, S. Martin; Ulfilas and the Goths.

Emperors Theodosius, Arcadius, Honorius; Macedonianism, Council of Constantinople A.D. 381 (Second Oecumenical): S. Gregory of Nyssa, S. Gregory Nazianzen, S. John Chrysostom, S. Jerome, S. Augustine, Pope Damasus, S. Ninian; Pelagius: Alaric.

Council of Ephesus A.D. 431 (Third Oecumenical), Nestorianism, Pelagianism, Theodore of Mopsuestia: S. Cyril of Alexandria, S. Vincent of Lerins, Pope Celestine I., S. Germanus, S. Palladius, S. Patrick. Anglo-Saxons in England.

Council of Chalcedon A.D. 451 (Fourth Oecumenical), Eutychianism, Monophysitism. The Tome of S. Leo; Attila, Battle of Chalons; Genseric, Ricimer, Odoacer. End of the Western Empire. Emperors Leo I. and II. The Henoticon; beginning of Schism between Eastern and Western Churches. S. Benedict; Baptism of Clovis. Theodoric the Goth.

Second Council of Constantinople A.D. 553 (Fifth Oecumenical). The Emperor Justinian: his Wars, Belisarius; his Laws; his buildings, S. Sophia. Spain becomes orthodox, Recared; S. Leander, Isidore of Seville. Pope Gregory the Great. Conversion of Anglo-Saxons. Mahomet. The Emperor Heraclius, the Ecthesis. S. Columbanus. Theodore of Tarsus, Abp. of Canterbury.

Third Council of Constantinople A.D. 680 (Sixth Oecumenical). Monothelitism. Pope Honorius. Quinsext Council. S. Boniface, S. John of Damascus. Arabs in Spain. Charles Martel, Battle of Tours. Pepin crowned by Pope Stephen, the States of the Church. Chrodegang, Bishop of Metz.

Second Council of Nicaea A.D. 787 (Seventh Oecumenical). The Council of Frankfort, the Caroline Books. Adoptionist heresy in Spain; Paulicianism. Charlemagne and the Saxons. Alcuin. A.D. 800 Charlemagne crowned Emperor at Rome.

Books which should be read, or at least consulted:—

Eusebius, *Life of Constantine*, Socrates, Sozomen, Evagrius, Gregory of Tours; *Letters* of S. Basil, S. Jerome, S. Patrick, S. Leo, S. Gregory the Great, S. Boniface, Alcuin; S. Adamnan's *Life of S. Columba*; Venerable Bede, *Ecclesiastical History of the English Nation*; Einhard, *Vita Caroli Magni*.

Liber Pontificalis (ed. Duchesne); *Regesta Pontificum Romanorum*; Mansi, *Concilia*; Baronius, *Annales*; Tillemont.

Mosheim, Moeller, Gieseler, Robertson, Kurtz, Bright. *Tome of S. Leo* and *Age of the Great Fathers*; Milman, *History of Latin Christianity*; Hutton, *The Church and the Barbarians*; Gibbon, *Decline and Fall of the Roman Empire* (ed. Bury); Hodgkin, *Italy and her Invaders* and *Life of Charles the Great*; Bury, *History of the Later Roman Emperors*; Margoliouth, *Mohammed*.

Especially Percival, *The Seven Oecumenical Councils*; Hefele, *History of the Councils*. See also the lives of the chief personages in Smith's *Dictionary of Ecclesiastical Biography*.

(c) *Biblical Criticism.*—(1) Textual Criticism. (2) Hermeneutics.

Books which may be consulted :

(1) Davidson, *Biblical Criticism* ; Tregelles, *Treatise in Horne's Introduction, Vol. IV.* ; Scrivener, *Introduction to the Criticism of the New Testament* (fourth edition) ; Westcott and Hort, *Prolegomena to the Greek Testament* ; Nestle, *Textual Criticism of the Greek New Testament* ; Gregory, *Canon and Text of the New Testament.* (2) Davidson, *Sacred Hermeneutics* (1843), or *Treatise on Interpretation in Horne's Introduction, Vol. II.* ; Ernesti, *Institutio Interpretis* ; Immer, *Hermeneutik des Neuen Testamentes.*

The scheme of examination for session 1910-1911 will be as follows :

I. FIRST DEPARTMENT

(*a*) *Hebrew.*—(1) Deuteronomy, ch. i.–xii. ; (2) Isaiah, ch. i.–xxiii. ; (3) Psalms, cvii.–cxxxiv. ; (4) Portions of unpointed Hebrew to be punctuated and translated ; (5) Translations from English into Hebrew.

(*b*) *New Testament Exegesis.*—(1) Introduction to the Gospel according to Luke ; (2) Exegesis of Luke viii. 5–xviii. 14, with critical comparison of the parallel passages in Matthew and Mark ; (3) Introduction to, and exegesis of, the Epistle to the Galatians.

(*c*) *Apologetics.*—(1) Philosophy and History of Religion ; (2) Christian Apologetics ; (3) Antitheistic Theories.

Books which may be consulted :

(1) Fairbairn, *Philosophy of the Christian Religion* ; Caird, *Introduction to the Philosophy of Religion*, and *Fundamental Ideas of Christianity* ; Menzies, *History of Religion.* (2) Bruce, *Apologetics* ; Fisher, *Grounds of Theistic and Christian Belief* ; Mair, *Studies in the Christian Evidences.* (3) Flint, *Antitheistic Theories.*

II. SECOND DEPARTMENT

(*a*) *Divinity.*—(1) Doctrine of Revelation, including the Authority and Inspiration of Holy Scripture ; (2) Doctrine of God and the Holy Trinity ; (3) The Pauline Theology.

Books which may be consulted :

Generally, the theological manuals of Hodge, W. Adams Brown, or Macpherson.

Specially—(1) Sanday, Bampton Lecture on *Inspiration* ; Ladd, *Doctrine of Sacred Scripture* ; Bruce, *Chief End of Revelation.* (2) Illingworth, *Personality, Human and Divine*, and *Doctrine of the Trinity* ; Candlish, *Christian Doctrine of God* ; Crawford, *Fatherhood of God.* (3) Stevens, *Pauline Theology* ; Pfleiderer, *Paulinismus*, Vol. I.

(*b*) *Church History*, 1910-11.—Ecclesiastical History from the Coronation of Charlemagne to the death of Pope Boniface VIII. (A.D. 800-1303.)

(*c*) *Biblical Criticism.*—(1) Textual Criticism ; (2) Hermeneutics.

TABLE OF EXAMINATIONS FOR THE DEGREE OF B.D. TO BE HELD DURING SESSION 1909-10.

Fees.	Names to be given in and Fees paid to the Assistant-Clerk (Matriculation Office). Date.[1]	Dates of Written Examinations and Hours at which the different Papers will be set.		
			FIRST DEPARTMENT.	SECOND DEPARTMENT.
The Fee for each Department is £2 12s. 6d.	27th Sept., 1909.	Wed., 6th Oct., 1909.	Hebrew, - - - -	Divinity, - - 9—12 noon.
		,, ,,	Hebrew, - - - -	Textual Criticism, 2— 5 p.m.
		Thurs., 7th Oct., 1909.	Apologetics, - - -	Church History, - 9—12 noon.
		,, ,,	New Testament Exegesis, -	Hermeneutics, - 2— 5 p.m.
	4th Mar., 1910.	Fri., 18th Mar., 1910.	Hebrew, - - - -	Divinity, - - 9—12 noon.
		,, ,,	Hebrew, - - - -	Textual Criticism, 2— 5 p.m.
		Sat., 19th Mar., 1910.	Apologetics, - - -	Church History, - 9—12 noon.
		,, ,,	New Testament Exegesis, -	Hermeneutics, - 2— 5 p.m.

[1] Forms of application for examination may be obtained at the Matriculation Office. These forms, when filled up, must be forwarded by the candidates to the Dean of the Faculty of Theology, along with certificates of attendance on the required classes, and, having been certified by him, must then be transmitted to the Assistant-Clerk (Matriculation Office) on or before the date prescribed above. In entering for the Second Department candidates from other schools must produce, in addition to class certificates, evidence that they have completed, or are about to complete, their Theological Course.

7. HONORARY DEGREES.

The powers of the Senatus Academicus to grant Honorary Degrees are regulated by Ordinance No. 41 of the Universities Commission (1889) of date 13th December, 1893, which received the approval of Her Majesty in Council on 28th May, 1894.

Degree of Doctor of Divinity.

The following are the regulations for the Degree of D.D.:—

I. At the commencement of every session, the Senatus Academicus in each University shall appoint a committee, to be called the Committee on the Degree of Doctor of Divinity, consisting of the Principal, three Professors from the Faculty of Theology (of whom the Professor of Divinity shall be one), and three other Professors to be selected by the Senatus Academicus from the other Faculties.

II. It shall be the duty of this committee to select persons to be recommended to the Senatus Academicus for the degree; but the committee shall not entertain applications from or on behalf of persons desirous of receiving the degree.

III. The committee shall present a reasoned report, embodying its recommendations to the Senatus.

IV. In the case of every person recommended for the degree, the report shall contain a statement of the grounds on which the recommendation is founded, specifying such particulars as the Senatus may from time to time require.

Under this regulation the Senate requires the following particulars to be specified, viz.:—

(*a*) Whether he is an alumnus of this University, and whether he already holds the Degree of B.D., or any other University Degree.

(*b*) Whether he has published a contribution of merit to Theological Literature.

(*c*) Whether his character and professional standing are such as to warrant the conferring of the proposed distinction.

V. No resolution to confer the Degree of Doctor of Divinity shall be moved in the Senatus except upon special notice given after a fortnight has elapsed from the date when the report of the committee shall have been presented.

Degree of Doctor of Laws.

The following are the regulations for the Degree of LL.D.:—

I. At the commencement of every session, the Senatus Academicus in each University shall appoint a committee, to be called the Committee on the Degree of Doctor of Laws, consisting of the Principal and such Professors selected from the various Faculties as the Senatus Academicus may determine, provided that the total number of the committee shall not exceed twelve.

II. It shall be the duty of this committee to select persons to be recommended to the Senatus for the degree, but the committee shall not entertain applications from or on behalf of persons desirous of receiving the degree.

III. The committee shall present to the Senatus a reasoned report embodying its recommendations.

IV. In the case of every person recommended for the degree, the report shall contain a statement of the grounds on which the recommendation is founded, specifying such particulars as the Senatus may from time to time require.

Under this regulation the Senate requires the following particulars to be specified, viz. :—

(*a*) Whether he is an alumnus of this or any other University, and whether he already holds any academical degree.

(*b*) Whether he is the author of any work of acknowledged merit, or has otherwise contributed to the progress of learning and science.

(*c*) And, in general, whether his character, profession, and position in society are such as to warrant the conferring of the proposed distinction.

V. No resolution to confer the Degree of Doctor of Laws shall be moved in the Senatus except upon special notice given after a fortnight has elapsed from the date when the report of the committee shall have been presented.

Academic Dress.

Graduates of the University.

On ceremonial occasions the graduates are expected to appear in the Gown and Hood proper to their degrees.

The ordinary Gowns to be worn by graduates of the University of Glasgow are of black silk or stuff, of similar shape to those appropriated to the corresponding degrees in the other British Universities.[1]

The full-dress Gowns to be worn by Doctors are of scarlet cloth, faced in each case with silk of the colour prescribed for the lining of the Hood proper to the degree.

The Hoods for the different degrees are as follows :—

B.A., Black Silk, bordered inside with Red Purple Silk (colour of Bell Heather—*Erica Cinerea*).

M.A., Black Silk, lined with Red Purple Silk.

D.Phil., Scarlet Cloth, lined with reddish Purple Silk.

D.Litt., Scarlet Cloth, lined with bluish Purple Silk.

---

[1] The Robemakers to the University have standard patterns of the gowns, which, it may be stated for the information of those at a distance, are of the same shape with the ordinary (or undress) gowns of the corresponding degrees at Cambridge.

B.Sc., Black Silk, bordered with Scarlet Cloth and lined with Gold Coloured Silk (colour of Whin Blossom—*Ulex Europæa*).

D.Sc., Scarlet Cloth, lined with Gold Coloured Silk.

B.L., Black Silk, with an inside border of Venetian Red Silk (colour of Clove Carnations).

LL.B., Black Silk, bordered with Scarlet Cloth and lined with Venetian Red Silk.

LL.D., Scarlet Cloth, lined with Venetian Red Silk.

M.B. and C.M., Black Silk, bordered with Scarlet Cloth and lined with Scarlet Silk.

M.D., Scarlet Cloth, lined with Scarlet Silk.

B.D., Black Silk, bordered with Scarlet Cloth and lined with a light Cherry Silk.

D.D., Scarlet Cloth, lined with White Silk.

UNDER-GRADUATES.

By a Statute of the Commissioners appointed by the Act, 1690, chapter XVII., of the Parliament of Scotland, "for the Visitation of Universities and Schools," it was enacted that "all the students in the several Universities and Colleges within this kingdom be obliged to wear gowns during the time of the sitting of the Colleges," and that "the Regents or Masters be obliged to wear black gowns, and the students red gowns; and, in regard that wearing of gowns has never been the custom in the College of Edinburgh, the Commissioners do therefore recommend to the Masters of that College to endeavour to bring the custom of wearing gowns there into practice." It appears from the University records that the wearing of red gowns had been previously the practice in Glasgow, and it continued to be the practice in all the Arts classes which existed at the date of this statute uninterruptedly till recently.

The General Council of this University having requested the University Court to recommend to the Senate the propriety of requiring the students to conform to the ancient practice of this University as to academic dress; and the University Court having remitted the subject to the determination of the Senate, with an expression of regret that the academical dress formerly worn by the Arts students has of late years been laid aside, the Senate has given notice that the proper academic dress for students in Arts is the red gown.

While this notice does not apply to students not in the Faculty of Arts, all students in the University are entitled to wear the red gown. Students may wear on the red gown a trimming distinctive of their faculty. The trimming approved for this purpose is a narrow silk band of the colour of the hood-lining proper to the degree of Bachelor in the Faculty, placed over the seam which crosses the breast of the gown on each side.

Ceremony of Graduation.

The following are the regulations adopted by the Senate :—

All degrees honorary or gained by examination, shall be publicly conferred, except in special cases to be decided by the Senate.

Candidates for graduation are required to appear in black gowns with the hoods appropriate to their degrees ; those who are already graduates, in the costume proper to their previous degree.

At graduation ceremonies members of the Senate who are Doctors should wear the hood of their degree over either the ordinary or the full-dress gown.

X.—MEMOIRS, PAPERS, ETC.

Published during the years 1907-1909 by Members of the Teaching Staff, Scholars and Fellows, Research Students, and others.

The Carnegie Trustees have given financial aid in those cases marked by an asterisk (*).

DIVINITY.

Professor H. M. B. Reid, D.D.

Movements of Theological Thought, with a Plea for Calvinism. Opening Lecture, Oct. 1907. MacLehose, Glasgow. 24 pp.

A Country Parish : Studies in Pastoral Theology and Church Law. MacLehose, Glasgow, 1908. 145 pp.

CONSTITUTIONAL LAW AND HISTORY.

Wm. S. McKechnie, M.A., LL.B., D.Phil., Lecturer.

The Constitutional Necessity for the Union of 1707. *Scot. Hist. Rev.*, Oct. 1907, Vol. V., pp. 52-66. 15 pp.

De Jure Regni apud Scotos, contributed to "George Buchanan : Glasgow Quatercentenary Studies." Demy 8vo, MacLehose, 1907, pp. 210-296. 87 pp.

The Reform of the House of Lords : with a Criticism of the Report of the Select Committee of 2nd December, 1908. Crown 8vo, MacLehose, 1909, pp. x + 136.

Also Signed Reviews of the following Works :

His Grace the Steward and Trial of Peers. By L. W. Harcourt. *Scot. Hist. Rev.*, Oct. 1907, Vol. V., pp. 112-115. 3 pp.

A History of Diplomacy in the International Development of Europe. By David Jayne Hill. *Scot. Hist. Rev.*, Oct. 1907, Vol. V., pp. 123-124. 2 pp.

The History of England from the Accession of James I. to the Restoration. By F. C. Montague. *Scot. Hist. Rev.*, Jany. 1908, Vol. V., pp. 225-227. 2 pp.

Studies of Political Thought from Gerson to Grotius. By John Neville Figgis. *Scot. Hist. Rev.*, Jany. 1908, Vol. V., pp. 235-236. 2 pp.

History of Modern Liberty. Vol. III. By James Mackinnon. *Scot. Hist. Rev.*, July 1908, Vol. V., p. 476. 1 p.

English Society in the Eleventh Century. Essays in English Mediaeval History. By Paul Vinogradoff. *Scot. Hist. Rev.*, Oct. 1908, Vol. VI., pp. 76-79. 3 pp.

The Constitutional History of England. By F. W. Maitland. *Scot. Hist. Rev.*, Oct. 1908, Vol. VI., pp. 88-91. 3 pp.

The Government of England. By A. Lawrence Lowell. *Scot. Hist. Rev.*, Jany. 1909, Vol. VI., pp. 189-191. 2 pp.

Humphrey, Duke of Gloucester. A Biography. By K. H. Vickers. *Scot. Hist. Rev.*, Jany. 1909, Vol. VI., pp. 208-209. 2 pp.

Studies and Notes, Supplementary to Stubbs' Constitutional History. By Charles Petit Dutaillis. Translated by W. E. Rhodes. *Scot. Hist. Rev.*, April 1909, Vol. VI., pp. 296-299. 4 pp.

INTERNATIONAL LAW

ARCHIBALD H. CHARTERIS, LL.B., Lecturer.

July 1907. Marriage on the High Seas. 19 *Juridical Review*, p. 178.

October 1907 and January 1908. The Results of the Second Peace Conference. Two papers. 19 *Juridical Review*, p. 223, and 20, p. 347.

Septr. 1908. Marriage with Foreigners Act, 1906. A paper read for the International Law Association at the Buda-Pest Conference, September 1908. To be printed in the forthcoming 25th Report of the Association.

In addition to the above several reviews of works on International Law were printed in the *Juridical Review*.

Octr. 1906. Claims to Territorial Jurisdiction in Wide Bays. Paper read before the International Law Association at the Berlin Conference in October 1906. Printed in the 23rd Annual Report of the Association, 1906, p. 103, and in the *Yale Law Review*, February 1907.

Jany. 1907. Note on the Marriage with Foreigners Act, 1906. 18 *Juridical Review*, p. 408.

April 1907. The Programme of the Second Peace Conference. 19 *Juridical Review*, p. 73.

Also several Reviews.

LATIN.

PROFESSOR JOHN S. PHILLIMORE, M.A.

Contributed to the *Dublin Review* (1907-8) : Articles on *Crinagoras of Mitylene: Asclepiades: Eugène Fromentin.*

Contributed to *Classical Review, Classical Quarterly, Classical Philology* (Chicago), Sundry short notes and *Adversaria.*

GREEK.

WILLIAM RENNIE, M.A., Lecturer.

Some Notes on Aristophanes. *Classical Quarterly,* January 1909. pp. 22-5.

The "Acharnians of Aristophanes." Edited with Introduction, Critical Notes, and commentary. London, Edward Arnold, 1909. 279 pp.

GERMAN.

HERBERT SMITH, M.A., Ph.D., Lecturer.

Syntax der Wycliffe-Purveyschen Übersetzung und der Authorised Version der vier Evangelien. *Anglia,* 1907.

HEBREW AND SEMITIC LANGUAGES.

PROFESSOR W. B. STEVENSON, D.LITT.

The Crusaders in the East : A brief history of the wars of Islam with the Latins in Syria during the 12th and 13th centuries. Pp. xi + 389 (with two maps). Cambridge, 1907.

ARABIC.

THOMAS H. WEIR, B.D., M.R.A.S., Lecturer.

Manuscripts in the Hunterian Library (the material for most of the Oriental MSS., pp. 453-523).

A New Theory of the "Servant of Jehovah." *Westminster Review,* March 1908, pp. 309-314.

Christianity and the Arabic-speaking Peoples. *Society for Biblical Studies,* July 1908, pp. 7-9.

CELTIC.

GEORGE HENDERSON, M.A., Ph.D., Lecturer.

Leigheas Coise O'Céin. From a MS. in Edin. Adv. Library. Published in Transactions of Gaelic Society of Inverness. Inverness, 1907.

The Ratisbon MS. Described for the first time. Trans. Gaelic Soc. Inverness, Vol. for 1909.

Aonghas nan Aoir : An account of the connection between Scotland and Ireland in Elizabeth's reign. *Ib.*

*Vestigia Gadelica: Survivals in Belief and Ritual among the Gael. The Kelly-MacCallum Lectures in the University of Glasgow, 1907-1908. (In press.)

The Norse influence on Celtic Scotland. The Kelly-MacCallum Lectures, 1908-1909. (In press.)

LOGIC.

Archibald A. Bowman, M.A., Lecturer.

Les Bases de la Philosophie Naturaliste, par André Cresson. *Review of Theology and Philosophy*, October 1907, pp. 251-5.

Sensations Païennes, par le Dr. Paul Hartenberg. Pessimisme, Féminisme, Moralisme, par Camille Bos. *Review of Theology and Philosophy*, March 1908, pp. 586-93.

Summary of the Revue Philosophique de la France et de l'Étranger. 32me Année. Avril, Mai, Juin, Juillet, Août, 1907. *Mind*, April 1908, pp. 294-5.

The Philosophy of Loyalty. By Josiah Royce. *Review of Theology and Philosophy*, October 1908, pp. 271-274.

The Will to Doubt. By Alfred H. Lloyd. Die Dritte Dimension. Eine philosophische Erörterung. Von A. Levy. *Mind*, October 1908, pp. 574-5; 581.

Die Weltanschauung Spinozas, von Dr. A. Wenzel. *Review of Theology and Philosophy*, May 1909.

PSYCHOLOGY.

Henry J. Watt, M.A. (Abdn.), Ph.D. (Würzburg), Lecturer.

The Economy and Training of Memory. London: Edward Arnold. 1909. viii+128 pp.

MENTAL PHILOSOPHY.

Robert A. C. Macmillan, M.A., Ewing Fellow.

Reflective Judgment—The High-Water Mark in the Critical Philosophy. *Mind*, April 1909.

EDUCATION.

Wm. Boyd, M.A., B.Sc., Lecturer.

The Selection of Literature for Study in the Secondary School. *The School World*, Oct. 1907.

The Life and Duties of a Citizen (The Teaching of Citizenship). *The Practical Teacher*, Oct. 1907.

Note on the Clauses of the Orange River Colony Education Act relating to the Medium of Instruction. *The Friend, Bloemfontein*, Feb. 13th, 1909.

POLITICAL ECONOMY.

Professor William Smart, D.Phil., LL.D.

Memoranda prepared for the Royal Commission on the Poor Laws, and printed as Appendices to the Report :

The Report of the Commission of 1832.

The Principles of the Poor Law Amendment Act of 1834.

The Poor Law Commissioners, 1834-1847.

The Poor Law Board, 1847-1871.

The First Six Years of the Local Government Board.

The History of the Scots Poor Laws prior to 1845.

SOCIAL ECONOMICS.

Thomas Jones, M.A., Lecturer.

The Effect of Outdoor Relief on Wages and Conditions of Employment. *Interim* and *Final Reports to the Royal Commission on the Poor Laws and Relief of Distress*, 1906-1909. pp. 590.

The Reports of the Poor Law Commission. *Economic Review*, Vol. XIX., 1909, pp. 137-148. 12 pp.

NATURAL PHILOSOPHY.

List of Work published by Members of Staff of Natural Philosophy Department since occupation of New buildings in 1907.

Professor A. Gray, LL.D., F.R.S.

On the Attraction of a Solid Ellipsoid and of Ellipsoidal Shells. *Phil. Mag.*, 1907.

The Life and Work of Lord Kelvin. Published by J. M. Dent & Co., 1908, 8vo, pp. viii + 119.

Notes on Hydrodynamics, chiefly on Vortex Motion. *Phil. Trans. Roy. Soc. Edin.*, 1909.

On Lagrange's Equations of Motion. *Proc. Roy. Soc. Edin.*, 1909.

James G. Gray, D.Sc., F.R.S.E., Lecturer.

On Heusler's Magnetic Alloy. *Proc. Roy. Phil. Soc. Glas.*, 1906.

Experiments with Heusler's Magnetic Alloy. *Proc. Roy. Soc. Edin.*, 1908.

On Low Temperature Experiments in Magnetism. (With Hugh Higgins, M.A.) *Proc. Roy. Soc. Edin.*, 1909.

On Reversible Conditions produced in Magnetised Steel by Alternate Cooling and Warming. (With Hugh Higgins, M.A.) *Proc. Roy. Phil. Soc. Glas.*, 1909.

James G. Gray, D.Sc., F.R.S.E., and Alexander D. Ross, M.A., B.Sc., F.R.S.E.

On a Sensitive State induced in Magnetic Materials by Thermal Treatment. Part 1. *Proc. Roy. Soc. Edin.*, 1908.

On the Construction of Permanent Magnets from Specimens of nearly Pure Copper. *Proc. Roy. Phil. Soc. Glas.*, 1908.

On a Sensitive State induced in Magnetic Materials by Thermal Treatment. Part 2. *Proc. Roy. Soc. Edin.*, 1908.

Über die Herstellung permanenter Magnete aus Proben nahezu reinen Kupfers. *Phys. Zeitschr.*, 1909.

On a New Form of Magnetometer and Accessories for the Examination of Magnetic Materials at Different Temperatures. *Proc. Roy. Soc. Edin.*, 1909.

Robert A. Houstoun, M.A., Ph.D., D.Sc., Lecturer

*Ein neues Spektralphotometer vom Hüfner Typus. *Phys. Zeitschr.*, 1908.

*A New Spectrophotometer of the Hüfner Type. *Phil. Mag.*, 1908.

Note on the Electrical Resistance of Spark Gaps. *Proc. Roy. Soc. Edin.*, 1908.

*On a Question in Absorption Spectroscopy. (Assisted by Alexander S. Russell, M.A.) *Proc. Roy. Soc. Edin.*, 1908.

On the Damping of Long Waves in a Rectangular Trough. *Phil. Mag.*, 1909.

The Transverse Oscillations of a Canal of Circular Section. *Phil. Mag.*, 1909.

*A Negative Attempt to Detect Fluorescence Absorption. *Proc. Roy. Soc. Edin.*, 1909.

G. E. Allan, D.Sc., Lecturer

On the Magnetism of Basalt. *Phil. Mag.*, 1909.

Alexander D. Ross, M.A., B.Sc., F.R.S.E., University Assistant

Determination of the Mass of a Meteorite. *Journal Brit. Astron. Ass.*, 1907.

Heusler's Magnetic Alloy. *Proc. Roy. Soc. Edin.*, 1907.

On the Magnetic Properties of Manganese Aluminium Bronze. (With Robert Jack, M.A., B.Sc.) *Proc. Roy. Phil. Soc. Glas.*, 1908.

On the Magnetic Properties of Certain Copper Alloys. (With Robert C. Gray.) *Proc. Roy. Soc. Edin.*, 1909.

Magnetic Bronzes. (With Robert C. Gray.) *Proc. Roy. Phil. Soc. Glas.*, 1909.

GEORGE GREEN, M.A., B.Sc., University Assistant.

Flexural Vibrations of Thin Rods. *Proc. Roy. Soc. Edin.*, 1909.

On Group-Velocity and on the Propagation of Waves in Dispersive Media. *Proc. Roy. Soc. Edin.*, 1909.

ASTRONOMY.

PROFESSOR LUDWIG BECKER, Ph.D.

The distribution of Blue-Violet Light in the Solar Corona on August 30, 1905, as derived from photographs taken at Kalaa-es-Senam, Tunisia. *Philosophical Transactions of the Royal Society*, Vol. 207A, pp. 307-339. London, 1907. 33 pp., 1 plate. Memoirs of the Royal Astronomical Society, Vol. 57. Appendix II. London, 1908. 33 pp., 1 plate.

The Climate of Glasgow. Results of 40 years' Meteorological Observations, 1868-1907. Accepted (March, 1909) for publication by the Royal Philosophical Society of Glasgow. About 200 pp.

The Astronomical observations obtained in 1907-09, belong to a series begun in 1898, and will be published after the completion of the series.

GEOLOGY.

PROFESSOR JOHN W. GREGORY, D.Sc., F.R.S.

Australasia, Vol. I., 1907. In Stanford's Compendium of Geography and Travel.

Geography, Structural, Physical and Comparative. Blackie, 1908.

Report on the Work of the Commission sent out by the Jewish Territorial Organization . . . to examine the Territory proposed for . . . a Jewish Settlement in Cyrenaica. London, Its Office, 1909.

Some Scientific Results of the Antarctic Expeditions, 1901-04. *Geog. Journ.*, July 1908, pp. 25-47.

Recent Literature on the Plan of the Earth. *Geog. Journ.*, August 1908, pp. 151-156.

Origin of the Gold in the Rand Banket. *Trans. Inst. Min. and Metallurgy*, 17th Session, 1907-8, pp. 1-41.

Lord Kelvin's Contributions to Geology. *Trans. Glasgow Geol. Soc.*, Vol. XIII., Pt. II., 1908, pp. 170-186.

New Species of Cretaceous Bryozoa. *Geol. Mag.* N.S. (v.), Vol. VI., 1909, pp. 61-66.

What is a Mineral? *Trans. Inst. Min. Eng.*, 1909. Repr., pp. 1-30.

The Loch Lomond Moraines (with J. Renwick). *Trans. Geol. Soc. Glasgow*, Vol. XIII., Pt. I., 1907, pp. 45-55.

A Glaciated Rock Surface at Lugton, Ayrshire. *Ibid.*, pp. 10-18.

G. W. Tyrrell, A.R.C.Sc., University Assistant.

Notes on a Series of Specimens Illustrating the effects of Differential Weathering on Some Scottish Metamorphic Rocks. *Trans. Geol. Soc. Glasgow*, Vol. XIII., Pt. I., 1907, pp. 33-34.

Petrographical Notes on a Dyke crowded with Rock Fragments, near Barrhead. *Trans. Geol. Soc. Glasgow*, Vol. XIII., Pt. II., 1908, pp. 195-201.

A Puddle-trench Section at North Third, near Bannockburn, with Notes on the Geology of the Surrounding District (with N. Martin, B.Sc.). *Trans. Geol. Soc. Glasgow*, Vol. XIII., Pt. II., 1908, pp. 240-254.

ENGINEERING.

Harry Bamford, M.Sc., Lecturer.

A treatise on Moving Loads on Railway Underbridges, including New Graphical Methods of Treatment. Jan. 1908. Whittaker & Co. 78 pp.

Articles, *Cyclo. of Agriculture*, Gresham Pub. Co.:
Boilers. Vol. II., 1908, pp. 175-79. 5 pp.
Durability of Materials. Vol. V., 1909, pp. 4-5. 2 pp.
Electricity. Vol. V., 1909, pp. 37-38. 2 pp.
Energy. Vol. V., 1909, pp. 47-48. 2 pp.

Tests (with Prof. Latham) of an Oddie-Barclay Pump. See "Notes" of same read by Prof. Latham before Mining Inst. of Scotland, Dec. 1907. 1 Plate. 4 pp.

John S. Nicholson, B.Sc., Lecturer.

Lecture on Electrical Power Distribution, in Gordon's College, Aberdeen (one of 4 annual lectures under Arnott Trust).

Lecture on Testing of Materials, to Paisley Engineering Society.

Lecture on Polyphase Asynchronous Motor Testing, to Students' Section (Glasgow) of Inst. of Elec. Engineers.

Thomas B. Morley, B.Sc., University Assistant.

The Laying Out and Use of Calculating Charts. *Transactions of the Institution of Engineers and Shipbuilders in Scotland*, Vol. LI., 1907-08. 15 pp. 4 plates.

MINING.

Professor Charles Latham, M.I.M.E.

Notes on Tests and Results with an Oddie-Barclay High Speed Mine Pump. *Transactions of the Mining Institute of Scotland*, Dec. 12th 1907.

ORGANIC CHEMISTRY.

T. S. Patterson, Ph.D., D.Sc., Lecturer.

T. S. Patterson, A. Henderson, M.A., B.Sc., F. W. Fairlie, B.Sc. The Influence of Solvents on the Rotation of Optically Active

Compounds. Part X. Effect of the Configuration and Degree of Saturation of the Solvent. *J.C.S.*, 1907, 91, 1838-1846.

T. S. Patterson. Über das Drehungsvermögen in Lösungen. *Berichte*, 1908, 41, 113-120.

T. S. Patterson and D. Thomson, M.A., B.Sc. The Influence of Solvents on the Rotation of Optically Active Compounds. Part XI. Ethyl Tartrate in Aliphatic Halogen Derivatives. *J.C.S.*, 1908, 93, 355-371.

T. S. Patterson and D. P. M'Donald, M.A., B.Sc. The Influence of Solvents on the Rotation of Optically Active Compounds. Part XII. Ethyl Tartrate in Aromatic Halogen Derivatives. *J.C.S.*, 1908, 93, 936-945.

T. S. Patterson and A. M'Millan, M.A., B.Sc. The Polarimetric Study of Intramolecular Rearrangement in Inactive Substances. *J.C.S.*, 1908, 93, 1041-1051.

T. S. Patterson. The Influence of Solvents on the Rotation of Optically Active Compounds. Part XIII. Ethyl Tartrate in Aromatic Nitro-Derivatives. Influence of Temperature Change on Rotation in Solution. *J.C.S.*, 1909, 93, 1836-1857.

T. S. Patterson and D. P. M'Donald, M.A., B.Sc. The Influence of Solvents on the Rotation of Optically Active Compounds. Part XIV. Ethyl Tartrate in Benzaldehyde and in Quinoline. *J.C.S.*, 1909, 95, 321-327.

T. S. Patterson. A Simple Notation for Indicating the Configuration of the Sugars and Allied Substances. *Chem. News*, 1909, 99, 124-126.

T. S. Patterson and H. H. Montgomerie. The Influence of Solvents on the Rotation of Optically Active Compounds. Part XV. The Effect of Mixed Solvents on the Rotation of an Active Substance. The Heat of Mixture of Various Liquids. The Discrimination of Compounds in Solution. (*In course of publication*).

METALLURGICAL CHEMISTRY.

CECIL H. DESCH, D.Sc., PH.D., Lecturer.

Organic Chemistry; Homocyclic Division. *Chem. Soc. Ann. Reports*, 1907, 4. 28 pp., 1908.

The Planimetric Analysis of Alloys and the Structure of Phosphor-Copper (with A. K. Huntington). *Trans. Faraday Soc.*, 1908, 4. 9 pp. and 2 plates. 1908.

The Relation between Absorption Spectra and Chemical Constitution. Part IX. (with E. C. C. Baly). The Nitro- and Nitroso-Compounds. *Trans. Chem. Soc.*, 1908, 93, 1747. 14 pp. 1908.

Organic Chemistry (with G. T. Morgan). *Chem. Soc. Ann. Reports*, 1908, 107 pp. 1909.

Studies in Dynamic Isomerism. Part VIII. (with T. M. Lowry). The Relation between Absorption Spectra and Isomeric Change. *Trans. Chem. Soc.*, 1909, 95, 807. 17 pp. 1909.

Inter-Metallic Compounds. *J. Inst. Metals*, 1909, 1. 12 pp. 1909.

PHYSICAL CHEMISTRY AND RADIOACTIVITY.

FREDERICK SODDY, M.A., Lecturer.

The Wehnelt Kathode in a High Vacuum. *Nature*, Nov. 21, 1907, p. 53; *Physikalische Zeitschrift*, 1908, IX., p. 8.

The Relation between Uranium and Radium. Part III. *Philosophical Magazine*, Oct. 1908, p. 632. 7 pp. 1908.

Attempts to detect the Production of Helium from the Primary Radio-elements. *Philosophical Magazine*, Oct. 1908, p. 513. 16 pp., 1 plate. 1908.

* The Production of Helium from Uranium. *Nature*, Dec. 3, 1908, p. 129; *Le Radium*, 1908, V., p. 361; *Physikalische Zeitschrift*, 1909, X., p. 41.

The Charge carried by the α Particle. *Ion*, Nov. 1908, I., p. 4. 21 pp., 8 figures. 1908.

The Product and Rays of Uranium X. *Nature*, Jan. 28, 1909, p. 366; *Le Radium*, 1909, VI., p. 53.

The Rays of Uranium X. *Nature*, Mar. 11, 1909, p. 37.

BARON R. VON HIRSCH, PH.D., AND FREDERICK SODDY, M.A.

* A Gas generated from Aluminium Electrodes. *Philosophical Magazine*, Dec. 1907, p. 779. 6 pp. 1907.

FREDERICK SODDY, M.A., AND T. D. MACKENZIE, B.Sc., Carnegie Scholar 1905-6.

* The Electric Discharge in Monatomic Gases. *Proceedings of the Royal Society*, 1908, 80 A, p. 92. 18 pp. 1908.

FREDERICK SODDY, M.A., AND ALEXANDER S. RUSSELL, M.A.

The γ-Rays of Uranium. *Nature*, Mar. 4, 1909, p. 8; *Physikalische Zeitschrift*, 1909, X., p. 249. 3 pp. 1909.

BOTANY.

PROFESSOR F. O. BOWER, Sc.D., F.R.S.

The Origin of a Land Flora. 8vo, pp. xii + 727. London: Macmillan, 1908.

Practical Botany for Beginners. New Edition. (With Mr. Gwynne Vaughan.)

W. H. LANG, D.Sc., M.B., C.M., Lecturer.

1908. Preliminary Statement on the Morphology of the Cone of *Lycopodium Cernuum* and its bearing on the Affinities of *Spencerites*. *Proc. Roy. Soc. Edin.*, Vol. XXVIII., Pt. V. No. 21.

1909. A Theory of Alternation of Generations in Archegoneate Plants based upon the Ontogeny. *New Phytologist*, Vol. VIII., Jan. 1909.

Flowering Plants, contributed to *A Book of Nature Study*. Edited by J. Bretland Farmer, F.R.S.

A. A. Lawson, M.Sc., Ph.D., Lecturer.

The Gametophytes and Embryo of Pseudotsuga Douglasii. *Annals of Botany*, Vol. XXIII., No. XC., April 1909.

ZOOLOGY.

Professor J. Graham Kerr, M.A., F.R.S.

The Work of John Samuel Budgett, Cambridge, 1908 : John Graham Kerr, Hon. Editor.

The Development of Polypterus senegalus. Cambridge, 1907.

The cause of Disappearance of the Fifth Aortic Arch in Air-breathing Vertebrates. *Proc. Roy. Phys. Soc. Edin.*, Vol. XVII., 1908.

Note on the Autostylic Skull of Vertebrates. *Op. cit.*, Vol. XVII., 1908.

Note on Swim-bladder and Lungs. *Op. cit.*, Vol. XVII., 1908.

Keibel's Normentafeln zur Entwickelungsgeschichte. Heft IX. (In the press.)

Wilfred E. Agar, M.A., D.Sc., University Assistant.

On the Appearance of Vascular Filaments on the Pectoral Fin of *Lepidosiren paradoxa*. *Anatom. Anzeig.*, Bd. XXXIII., No. 1.

Note on the early Development of a Cladoceran (*Holopedium gibberum*). *Zoologisch. Anzeig.*, Bd. XXXIII., No. 13.

Charles H. Martin, B.A., University Assistant.

Nematocysts of Turbellaria. *Q.J.M.S.*, Vol. 52, 1908.

Some Observations on Acinetaria. Part 1. The "Tinctin-Körper" of Acinetaria and the Conjugation of *Acineta papillifera*. Part 2. The Life Cycle of *Tachyblaston ephelotensis*. (Nov. gen.) *Q.J.M.S.*, Vol. 53, 1909.

Some Observations on Acinetaria. Part 3. The Dimorphism of *Ophryodendron*. *Q.J.M.S.*, Vol. 53, 1909.

Muriel Robertson, M.A.

Studies on a Trypanosome found in *Pontobdella*. *Proc. Roy. Phys. Soc.*, Vol. XVII., 1907.

Notes upon a Haplosporidian, belonging to the genus *Ichthyosporidium*. *Proc. Roy. Phys. Soc. Edin.*, Vol. XVII., 1908.

Preliminary note on Haematozoa from some Ceylon Reptiles. *Spolia Zeylanica*, Vol. V., 1908.

Trypanosomes from *Emyda vittata*. *Quart. Journ. Micr. Science* 1909. (In the press.)

ANATOMY.

THOMAS H. BRYCE, M.A., M.D., Lecturer.

Quain's Elements of Anatomy, Eleventh Edition. Edited by E. A. Schäfer, Johnson Symington, and Thomas H. Bryce. Volume I. Embryology, by T. H. Bryce. Royal 8vo, pp. viii + 276. Illustrated by more than 300 engravings, mostly original. Longmans Green & Co., London, 1908.

Contributions to the Study of the Early Development and Imbedding of the Human Ovum. I. An early Ovum imbedded in the Decidua, by Thomas H. Bryce and John H. Teacher. II. An early Ovarian Pregnancy, by T. H. Bryce, J. H. Teacher and J. M. Munro Kerr. 4to, with 10 plates and 12 figures in the text. MacLehose, Glasgow, 1908. (For this volume a sum of £50 was guaranteed by the Carnegie Trust towards the expenses of publication.)

EMBRYOLOGY

JAMES F. GEMMILL, M.A., M.D., Lecturer.

Turbellaria of the Scottish National Antarctic Expedition. *Transactions Roy. Soc. Edin.*, XLV., Pt. III.; also in Scientific Results of the *Scotia* Expedition, Vol. V. (With Dr R. T. Leiper.)

APPLIED ANATOMY.

ROBERT KENNEDY, M.A., M.D., D.Sc., Lecturer.

Section of the Posterior Primary Divisions of the Upper Cervical Nerves in Spasmodic Torticollis. *British Medical Journal*, Oct. 3rd, 1908.

PHYSIOLOGY.

PROFESSOR D. NOËL PATON, M.D., B.Sc.; EDWARD P. CATHCART, M.D., D.Sc., Grieve Lecturer; GEO. H. CLARK, M.B., Ch.B., and T. GRAHAM BROWN, B.Sc., M.B., Ch.B., University Assistants; and others.

D. Noël Paton.

The Source of the Amniotic and Allantoic Fluids in Mammals. (Along with B. P. Watson and James Kerr.) *Trans. of Roy. Soc. of Edin.*, Vol. XLVI., p. 71, 1907.

D. Noël Paton.

The Effects on the Metabolism of Chloroform administered by Different Channels. *Proc. Roy. Soc. of Edin.*, Vol. XXVIII., p. 472, 1908.

Dorothy E. Lindsay and D. Noël Paton.

On the Rate of Elimination of Chloroform when administered by Different Channels. *Proc. Roy. Soc. of Edin.*, Vol. XXVIII., p. 499, 1908.

* *S. Jean Meiklejohn.*

On the Development of the Plexiform Nerve Mechanism of the Alimentary Canal (Preliminary Communication). *Journal of Physiology*, Vol. XXXVI., p. 400, 1908. (Carnegie Scholar.)

* *Williamina Abel.*

On the Development of the Autonomic (Sympathetic) System of the Alimentary Canal in the Chick. To be presented as a thesis for the degree of M.D. in July 1909. (Carnegie Scholar.)

D. Noël Paton and E. P. Cathcart.

Physiology of Nutrition. Appearing in the new edition of the *Encyclopaedia Britannica.*

* *George Herbert Clark.*

On the Histological Changes in the Liver and Kidneys after Chloroform administered by different Channels. Communicated to the *Royal Society of Edinburgh*, May 4th, 1909.

T. Graham Brown and E. P. Cathcart.

The Creatin-creatinin Content of Frog's Muscle. Proceedings of the Physiological Society: *Journal of Physiology.* Vol. XXXVII.

T. Graham Brown.

Der Einfluss des Nervensystems auf die Form der Zuckungskurve des Froschgastrocnemius. *Arch. für die ges. Physiologie.* Bd. 125, p. 491.

Eine neue Methode, Herzbewegungen bei Tauben zu registrieren. *Zeitschr. für biologische Technik.* Bd. I., p. 282.

* Observations on the Reflexes of the Guinea-pig. I. (In the printer's hands for the *Quarterly Journal of Experimental Physiology.*)

E. P. Cathcart.

Ueber die Zusammensetzung des Hungerharns. *Biochem. Zeitsch.* Bd. VI., 1907.

The Creatin-creatinin Content of Frog's Muscle. (With Dr. Graham Brown.) *Journal of Physiology.* Vol. 37. 1908.

On Endogenous Uric Acid. (With Drs. Kennaway and Leathes.) *Quart. Journ. of Medicine.* 1908.

On the Relation of the Pyloric to the Fundic part of the Stomach. *Proceedings of the British Association*, 1908.

On the Relation between the Output of Uric Acid and the Rate of Heat Production in the Body. (With Dr. Leathes.) *Proc. Royal Soc.* Vol. 79. 1907.

Annie Louise M'Ilroy, M.D., Research Student.

Tubal Gestation: its Pathology and Diagnosis. *Glasgow Hospital Report*, 1900.

A case of Hydrosalpinx with Torsion of the Pedicle. *Scottish Medical and Surgical Journal*, 1904.

Some Pathological Conditions of the Fallopian Tubes. (Read before the Glasgow Obstetrical Society.) *Glasgow Medical Journal*, 1904.

Three cases of Primary Carcinoma of the Ovary. *Journal of Obstetrics and Gynaecology of the British Empire*, 1905.

Ovarian Pregnancy. (With Dr. J. K. Kelly.) (Read before the Glasg. Obst. Society.) *Ibid.*, 1906.

Primary Cancer of the Ovary. (Read before the Obstetrical Section of the Royal Society of Medicine, London.) *Ibid.*, 1906.

A case of Cribriform Hymen. *Glasgow Medical Journal*, 1908.

A case of Mal-development of the Uterus. (Read before the Obst. Society.) *Glasg. Obst. Society's Transactions*, 1909.

A case of Primary Cancer of the Ovary. (Read before the Obst. Society.) *Glasg. Obst. Soc. Trans.*, 1909.

The Development of the Epithelial Elements of the Ovary. (Demonstration to be given at the Annual Meeting of the British Medical Association, July 1909.)

Janie Hamilton M'Ilroy, M.A., B.Sc., M.B., Ch.B., Buchanan Scholar.

Some Notes on Sympathetic Ophthalmia, with Special Reference to the Presence of Plasma Cells. *Royal London Ophthalmic Hospital Reports*, 1908.

Some Notes on a Case of Buphthalmos. *British Medical Journal*, 12th December, 1908, p. 1715.

Shortly to be published :

(1) A Preliminary Note on the Results of Operative Section of the Optic Nerve of the Rabbit.

(2) Some Notes upon the Effect of certain Drugs on the Enucleated Eye of the Frog.

MATERIA MEDICA.

William MacLennan, M.B., C.M., Lecturer.

Observations on the Ophthalmo-Reaction to Tuberculin. *British Medical Journal*, Dec. 7th, 1907.

On the Management and Treatment of Haemoptysis. *The Hospital*, May 16, 1909.

An Unusual Form of Mediastinal Tumour. *Glasgow Medical Journal*, July 1908.

PATHOLOGY.

Professor Robert Muir, M.A., M.D.

* Studies on Immunity. London, 1909. (Collected researches in collaboration with Drs. Carl H. Browning, Alexander R. Ferguson, and W. B. M. Martin.)

On Proliferation of the Cells of the Liver. *Jour. Path. and Bacter.*, Vol. XII., 1909.

Recent Investigations on Immunity in relation to Diagnosis and Treatment. *Glasgow Med. Journ.*, April 1909.

PROFESSOR ROBERT MUIR, M.A., M.D., and CARL H. BROWNING, M.D.

* On the Bactericidal Action of Normal Serum. *Journ. Path. and Bacter.*, Vol. XIII., 1908.

* On the Filtration of Serum Complement. *Ibid.*, 1909.

PROFESSOR ROBERT MUIR, M.A., M.D., and BYROM BRAMWELL, M.D.

A remarkable and hitherto undescribed Muscular Lesion occurring in Sprue. *Quart. Journ. of Med.*, Vol. I., Oct. 1907.

JOHN H. TEACHER, M.A., M.D., Lecturer.

Contributions to the study of the Early development and Imbedding of the Human Ovum. I. An early Ovum imbedded in the Decidua, by Thomas H. Bryce and John H. Teacher. II. An early Ovarian Pregnancy, by T. H. Bryce, John H. Teacher and J. M. Munro Kerr. 93 pp., 4to, with 10 plates and 21 figures in the text. James MacLehose & Sons, Glasgow, 1908. [The first specimen is recognised as the earliest known stage of the Human Ovum.]

On the Development and Natural Healing of secondary Tumours of Chorionepithelioma malignum. *Journ. of Path. and Bacter.*, Vol. XII., April 1908.

A series of Double Malignant Tumours. Preliminary communication (Jointly with Dr. M. Logan Taylor.) *Journ. of Path. and Bacter.*, 1908.

Report of a demonstration at the Versammlung deutscher anatomischer Gesellschaft, at Berlin, April 1908: *Anatomischer Anzeiger*, Aug. 1908.

(1) An extremely early Human Ovum imbedded in the Decidua. (Jointly with Dr. T. H. Bryce.)

(2) An early Ovum imbedded in the Ovary. (Jointly with Dr. T. H. Bryce and Dr. J. M. Munro Kerr.)

Carcinoma of the Stomach in a boy aet. 14 years and 9 months. (Jointly with Dr. R. Barclay Ness.) *British Journal of Children's Diseases*, Dec. 1908.

Review of "Beiträge zur frühesten Ei-einbettung beim menschlichen Weibe"; by Prof. Dr. Ph. Jung of Erlangen. *Journal of Obstetrics and Gynaecology of the British Empire*, Feb. 1909; being a critical review of the subject of imbedding and early development of the human ovum.

A case of Hodgkin's Disease. (Jointly with Dr. R. Barclay Ness.) *Glasgow Med. Journ.*, March 1909.

CARL H. BROWNING, M.D., Lecturer.

* Experimental Chemotherapy in Trypanosome Infections. *British Med. Journ.*, Nov. 1907.

* Chemotherapy in Trypanosome Infections: an Experimental Study. *Journ. Path. and Bacter.* Vol. XII., 1908.

* On the Nature of the Opsonins of Normal and of Immune Sera and on Opsonic Effects resulting from the combined action of Immune-body and Complement. *Journ. Med. Research*, Vol. XIV., 1908.

CARL H. BROWNING, M.D., Lecturer, and IVY M'KENZIE, M.A., B.Sc., M.B., Ch.B.

* Modifications of Serum and Organ Extract due to Physical Agencies and their Effect on the Wassermann Syphilis Reaction. *Journ. Path. and Bacter.*, Vol. XIII., 1909.

* The Wassermann Reaction, especially its Significance in General Paralysis of the Insane. *Journ. Neurol. and Psychiatry*, May 1909.

* On the Complement-containing Serum as a Variable Factor in the Wassermann Reaction. *Zeitschr. f. Immunitätsforschung*, Bd. II., 1909.

IVY M'KENZIE, M.A., B.Sc., M.B., Ch.B.

* Epithelmetaplasie bei Bronchopneumonie. *Virchow's Archiv f. path. Anat.*, Bd. 190, 1907.

* The Occurrence of Metaplasia of Epithelium in Cancer. *Journ. Path. and Bacter.*, Vol. XIII., 1908.

* The *Spirochæte pallida* and its Relations to the Lesions in Congenital Syphilis. *British Med. Journ.*, Oct. 1908.

* The Serum-diagnosis of Syphilis. *Journ. Path. and Bacter.*, Vol. XIII., 1909.

IVY M'KENZIE, M.B., Ch.B., and W. B. M'MARTIN, M.B., Ch.B.

* Serum-Therapy in Cerebro-spinal Fever. *Journ. Path. and Bacter.*, Vol. XII., 1908.

* The Pathology and Treatment of Cerebro-spinal Fever. *Brit. Med. Journal.*, Oct. 1908.

LEONARD FINDLAY, M.D., University Assistant.

The Etiology of Rickets. *Brit. Med. Journ.*, July 1908.

The Blood in Rickets. *Lancet*, April 1909.

LEONARD FINDLAY, M.D., University Assistant, with T. K. MONRO, M.D.

Note on the Course of the Cerebello-olivary Fibres. *Glasgow Med. Journ.*, July 1908.

William Rolland, M.D.

Aneurysm of the Hepatic Artery. *Glasgow Med. Journ.*, July 1908.

G. Haswell Wilson, M.B., Ch.B., Coats Scholar.

* On the Application of the Deviation of Complement Test to the detection of Albuminous Substances in the Urine. *Journ. Path. and Bacter.*, Vol. XIV., 1909.

FORENSIC MEDICINE AND PUBLIC HEALTH.

Professor John Glaister, M.D., D.P.H.

Contributions to the Transactions of the Medico-Legal Society on (*a*) Professional Privilege and Professional Secrecy, (*b*) Law regarding Administration of Anaesthetics, and (*c*) on Wounding by Fire-Arms. 1907-1909.

River Pollution and River Purification in Scotland. *Proc. Roy. Phil. Soc. of Glasgow*, 1907-08.

Poisoning by Arseniuretted Hydrogen: Its Properties, Sources, Relation to Scientific and Industrial Operations, Symptoms, Post-Mortem Appearances, Treatment, and Prevention. Edinburgh: E. & S. Livingstone. 1908. pp. 279.

Standard Encyclopedia of Modern Agriculture. Articles on
- (*a*) Buddeised Milk, Vol. III.
- (*b*) Humanised Milk.
- (*c*) Milk for Infants; in succeeding volumes.

G. A. Brown, M.B., C.M., D.P.H., B.Sc., University Assistant.

Cerebro-Spinal Meningitis. *Trans. Incorporated San. Ass. of Scotland*, 1907.

PRACTICE OF MEDICINE.

Walter K. Hunter, M.D., D.Sc., Lecturer.

(Along with Major Lamb, I.M.S.) On the Action of Venoms of Different Species of Poisonous Snakes on the Nervous System. No. 6. Venom of Enhydrina Valakadien. *Lancet*, 12th October, 1907.

Chapter on "The General and Prophylactic Treatment of Tuberculosis," in Mr. Maylard's *Abdominal Tuberculosis*. London: J. & A. Churchill. 1908.

Case of Cirrhosis of the Liver in a Boy nine years old. *Glas. Med. Jour.*, February 1908.

A case of Hypertrophic Stenosis of the Pylorus in an Infant 8 weeks old. *Glas. Med. Jour.*, July 1908.

A case of Sarcomatosis of Lymphatic Glands. *Lancet*, 11th July, 1908.

Infantile Splenic Anaemia, with Notes of Ten Cases. *Lancet*, 23rd January, 1909.

Case of Spleno-Medullary Leukaemia treated by X-Rays. *Trans. Glas. Med.-Chir. Socy.*, 1908.

Case of Banti's Disease. *Ibid.*

Case of Paroxysmal Tachycardia and Arhythmia, with unduly movable heart. *Ibid.*

Case of Pure Motor Aphasia. *Ibid.*, 1909.

Case of Little's Disease. *Ibid.*

SURGERY

J. H. PRINGLE, M.B., C.M., Lecturer

A Method of Operation in Cases of Melanotic Tumour of the Skin. *Edin. Med. Journal*, 1908.

On the Arrest of Hepatic Haemorrhage due to Trauma. *Annals of Surgery*, 1908.

The Interpelvi-abdominal Amputation. *Lancet*, 1909.

JOHN A. C. MACEWEN, B.Sc., M.B., C.M., University Assistant

A case of Intraparietal Hernia, with very small Peritoneal opening, giving rise to severe Abdominal Pain. *Lancet*, Oct. 1907.

A case of Achondroplasia, with remarks. *British Medical Journal*, Dec. 7, 1907.

Cavernous Naevus: Treatment by Metallic Magnesium. *Lancet*, Feb. 15, 1908.

An unusual type of Breast Tumour. *Journal of Pathology and Bacteriology*, April 1908.

Spina Bifida Occulta: Report on a case. *Journal of Pathology and Bacteriology*, July 1908.

A case of Abdominal, Pelvic, and Labial Tumour. *British Medical Journal*, Nov. 28th, 1908.

Hernia of the Vermiform Appendix, with an account of four cases. *Annals of Surgery*, April 1909.

CLINICAL SURGERY

GEORGE H. EDINGTON, M.D., University Assistant

Hygroma Colli and Branchial Fistula. *British Medical Journal*, October 5, 1907. 8 figs. 12 pp.

(With Dr. Leonard Findlay.) Cystic Tumours of the Abdomen: a Series of Specimens. *Glasgow Medical Journal*, Vol. LXVIII., No. 4, 1907, pp. 275-287. 3 figs. 13 pp.

ncision and Drainage of the Pericardium in a case of Purulent Pericarditis associated with Abscess of the Thigh. *Glasgow Medical Journal*, Vol. LXIX., No. 2, 1908, pp. 128-134. 6 pp.

raumatic Rupture of Small Intestine. *Glasgow Medical Journal*, Vol. LXX., No. 6, 1908, pp. 401-8. 2 figs. 8 pp.

perative Surgery, Notes for Students. Privately Printed by Alex. Macdougall, Glasgow, 1908. 37 figs. 30 pp.

Macrostoma, associated with Cleft of Soft Palate. *Glasgow Medical Journal*, Vol. LXXI., No. 5, 1909, pp. 338-41. 2 figs. 4 pp.

MIDWIFERY.

Samuel J. Cameron, M.B., Ch.B., University Assistant.

The Vascular System in the Fibro-myomata. *Transactions of the Obstetrical Society of Glasgow.*

Some Considerations on the Pathology of Extra-uterine Pregnancy, with a Note on its Surgical Treatment. *Ibid.*

Archibald N. M'Lellan, M.B., C.M., University Assistant.

To the Glasgow Obstetrical and Gynaecological Society: A case of intestinal obstruction in a woman three months pregnant, on whom the operation of ventro-fixation of the uterus had been performed six months previously. Two cases of prolapse of the uterus in the virgin, with some observations on the supports of the uterus. Three cases of gonorrhoea in the female, followed by tuberculous disease.

DISEASES OF THE EAR.

Thomas Barr, M.D., Lecturer.

Methods of Examination of the Ear and General Aural Semeiology. Clifford Allbutt's *System of Medicine*, Vol. IV., 1908.

Manual of Diseases of the Ear (with Dr. J. Stoddart Barr). 3 coloured plates and 215 illustrations. Fourth Edition. MacLehose, 1909.

The Examination of the Ear and Hearing (with Dr. J. Stoddart Barr). MacLehose, 1908.

J. Stoddart Barr, M.B., Ch.B., Private Assistant.

(With John Rowan, M.B.) An investigation into the frequency and significance of Optic Neuritis and other vascular changes in the retinae of patients suffering from purulent disease of the middle ear, with the results of the examination of the eyes and ears of 100 consecutive cases. *British Medical Journal*, 23 Nov., 1907.

Notes on partial grafting with the aid of local anaesthesia in the after-treatment of the radical mastoid operation. *Proceedings of the Royal Society of Medicine*, July 1908.

Paralysis of the Sixth Cranial Nerve in Aural Disease. *British Medical Journal*, 26 Sept., 1908.

(With Thomas Barr, M.D.) Guide to the Examination of the Ear and Hearing. Glasgow, 1908.

(With Thomas Barr, M.D.) Manual of Diseases of the Ear. Fourth Edition. Glasgow, 1909.

DISEASES OF THE EYE.

Andrew Maitland Ramsay, M.D., Lecturer.

Eye Injuries. MacLehose & Sons. 1907.

Importance of General Therapeutics in Treatment of Diseases of the Eye. *Hospital*, 1907.

Diagnosis and Treatment of Diseases of the Tear Passages. *Glasgow Medical Journal*, 1908.

Spectroscopic Test of Colour Vision. *Transactions of the Ophthalmological Society*, 1908-1909.

Diathesis in Ocular Disease. Bailliere, Tindall & Cox. 1909.

XI.—BURSARIES, SCHOLARSHIPS, Etc., PRIZES.

N.B.—No alumnus of the University is allowed to hold at one time more than one Bursary, Scholarship, or Fellowship, except in cases provided for by the Regulations.

In the case of Bursaries in the gift of the Senate, in appointing to which "a preference" is to be given to certain names, etc., by a "preference" the Senate understand, in every instance, a preference *ceteris paribus*.

The following ordinance issued on 11th June, 1908, by the University Court with regard to Bursaries, Scholarships, and Fellowships, which have taken effect prior to the 30th day of August, 1861, was approved by His Majesty in Council on 26th September, 1908:—

University Court Ordinance No. xxvii. (Glasgow, No. 8.—Regulations as to Bursaries, Scholarships, and Fellowships).

General.

I. For the purposes of this ordinance, bursaries in the Faculty of Arts (hereinafter referred to as bursaries in Arts) shall be deemed to be the bursaries now attached to the said Faculty by Deed of Foundation or by custom.

II. Bursaries in Arts heretofore tenable for four years shall continue to be so tenable, provided that, if the holders graduate after the three years' course, they shall only retain their bursaries during the fourth year of tenure if they shall engage in a course of study approved by the Senatus Academicus in subjects included in the curriculum for Degrees in Arts or in Pure Science.

III. All bursars in Arts, subject to the provision as to the fourth year of tenure contained in the immediately preceding section, shall attend in each year at least two classes qualifying for graduation in Arts, and shall duly perform the work of these classes: Provided that it shall be in the power of the Senatus Academicus, with the approval of the University Court, to permit such bursars as they shall from time to time select to attend classes qualifying for graduation in Pure Science in place of classes qualifying for graduation in Arts.

IV. It shall be in the power of the Senatus Academicus to suspend or deprive a bursar, scholar, or fellow on the ground of misconduct, or, if it think fit, on the ground of his failure to obtain class certificates or to produce such other evidence as may be required that he is prosecuting his studies in a manner satisfactory to the Senatus Academicus.

V. Bursaries in Divinity heretofore tenable for four years shall continue to be so tenable, provided that, if the holders graduate after the three years' course, they shall only retain their bursaries during the fourth year of tenure if they shall engage in a course of study in Divinity approved by the Senatus Academicus.

VI. In the case of a bursary, scholarship or fellowship not in the gift of a patron becoming vacant by forfeiture or otherwise before the expiry of the period of tenure, it shall be in the power of the Senatus Academicus, with the approval of the University Court, to determine as to the disposal thereof or of the income thereof during the remainder of the said period.

VII. Any bursary tenable in several Faculties successively shall not be attached to any one of such Faculties in any year other than a year in which in ordinary rotation it would have been attached to such Faculty.

VIII. It shall be in the power of the Senatus Academicus to require, as a condition of tenure, any holder of a scholarship or fellowship who is a graduate to engage in teaching within the University or to conduct tutorial classes, unless he shall satisfy the Senatus Academicus that he is pursuing special higher studies, or that he is engaged in original research.

IX. Each Examiner at examinations held by the University for the award of bursaries, scholarships, or fellowships shall receive suitable remuneration, and it shall be in the power of the University Court to charge the funds of bursaries, scholarships, or fellowships with the necessary expenses of examination.

Open Bursaries.

X. (1) The subjects and methods of the examinations for the award of open bursaries in Arts of the first year (hereinafter referred to as the Bursary Examinations) shall be prescribed by the Senatus Academicus, with the approval of the University Court, and the examinations shall be held at such times and places as the Senatus Academicus, with the approval of the University Court, may determine.

(2) No candidate shall obtain a bursary in Arts who shall not have passed the Preliminary Examination in Arts or have been exempted therefrom in accordance with the provisions of the Regulations for Degrees in Arts.

XI. It shall be competent for the Senatus Academicus, with the approval of the University Court, from time to time to make regulations as to the conditions under which persons shall be eligible to compete for bursaries of the first year in the Faculties of Arts and Science: Provided always that no student, who has during any term or period of the academical year attended any class qualifying for graduaon in the said Faculties in any Scottish University, shall be eligible o compete for such bursaries.

The University Court shall communicate to the General Council the egulations made from time to time by the Senatus Academicus, and ny representation made thereon by the General Council within two onths of the date of such communication shall be taken into onsideration by the University Court before such regulations are pproved.

XII. The Senatus Academicus, in determining the results of the xaminations for the award of bursaries in Arts of the first year, may ward such bursaries in respect of exceptional distinction in any one ranch of study.

XIII. Bursaries open for competition to students entering on their rst session of attendance in the Faculty of Medicine shall be tenable nly by those students who have passed the Preliminary Examination n Medicine, or who have been exempted therefrom in accordance with e provisions of the Regulations for Degrees in Medicine, and who have ot attended any class qualifying for graduation in Medicine: Provided lways that the last mentioned condition shall not be held to exclude candidate who may have attended the class of Physics, Chemistry, otany, or Zoology, otherwise than as part of a graduation course in edicine.

RESTRICTED AND PREFERENTIAL BURSARIES.

XIV. Candidates for bursaries in Arts which are not awarded by open ompetition shall present themselves for examination at one of the ursary Examinations above mentioned, and no bursary shall be awarded any candidate who shall not have passed the Preliminary Examin on in Arts or been exempted therefrom in accordance with the rovisions of the Regulations for Degrees in Arts.

XV. In the case of a bursary, scholarship, or fellowship in the gift a patron, including bodies corporate and not corporate, becoming acant by forfeiture or otherwise during the period of tenure, the natus Academicus shall forthwith give notice of the vacancy to the tron, who may, within such time as the Senatus shall fix, appoint to e vacant bursary a person who is qualified by having passed or tained exemption from the Preliminary Examination in Arts; and if e patron fail to do so within such time, the Senatus Academicus may lect a deserving student, who is so qualified, to fill the vacancy until e commencement of the next academical year, when the patron's right present shall revive.

XVI. On the occurrence of a vacancy in any bursary in the gift of atron, including bodies corporate and not corporate, at the expiry of period of tenure, the Senatus Academicus shall give notice of such cancy to the patron of the bursary and of the date of the Bursary amination next ensuing; and the patron may, if he think fit, submit the Senatus the names of two or more persons qualified to hold h bursary, who shall present themselves for examination at the said

Bursary Examination; the result of the examination shall be communicated by the Senatus to the patron for his information, and he shall thereafter present to the bursary.

XVII. In the case of a bursary in the gift of a patron, including bodies corporate and not corporate, if before the commencement of the academical year no person be presented who shall have become qualified to hold the bursary by the date at which open bursaries are awarded, the bursary shall be open to unrestricted competition for that year; and in the event of no person who shall have become qualified as above provided being presented before the commencement of the next academical year, the Senatus may either award the bursary as if it were open to unrestricted competition, or continue the same to the student to whom it had previously been awarded: Provided that this section shall not apply in cases where the patron shall before such award is made satisfy the Senatus Academicus that proper arrangements have been made for the selection of a qualified bursar.

MISCELLANEOUS.

XVIII. In the case of bursaries designed for poor students, the Senatus Academicus shall satisfy itself that the circumstances of candidates are such as to entitle them to the benefit of the endowment, and for this purpose the Senatus may require that a declaration be made by a parent or guardian, or by the minister of religion or schoolmaster, of each candidate as the Senatus shall think fit.

XIX. [Preferences and restrictions cancelled. These have been noted under each bursary concerned.]

XX. Nothing herein contained shall apply to any bursary or endowment granted by any incorporation or society whose funds, whether capital or revenue, have been and are contributed and paid by the members of such incorporation or society by way of entry moneys or other fixed or stated contributions.

XXI. The Senatus Academicus, with the approval of the University Court, shall prescribe the subjects and methods of examination and the conditions of competition for bursaries, scholarships, or fellowships, in so far as the same are not prescribed by ordinance or by deed of foundation.

XXII. The provisions of any Ordinance of the Commissioners under the Universities (Scotland) Act, 1858, in so far as inconsistent with the provisions of this ordinance, are hereby repealed; and any references made in existing Ordinances applicable to the University of Glasgow to Ordinance No. 57 of the Commissioners under the Universities (Scotland) Act, 1889, shall be deemed to refer to this Ordinance.

XXIII. This ordinance shall come into force from and after the date on which it is approved by His Majesty in Council: Provided that nothing herein contained shall extend to, or affect the interests of, any person holding a bursary, scholarship, or fellowship at the date of its coming into force.

BURSARIES FOR WOMEN.

On 10th March, 1898, the University Court, in virtue of the power conferred by Ordinance No. 58, Section I., resolved to appropriate to competition, without restriction as to sex, all the open bursaries tenable in Arts, Science, or Medicine, which have taken effect prior to 30th August, 1864. To a number of other Bursaries either men or women may be appointed. In the following lists of Bursaries arranged according to Faculties, *italics* are used in printing the names of those Bursaries for which both men and women are eligible.

A. BURSARIES ARRANGED ACCORDING TO FACULTIES.

BURSARIES IN THE FACULTY OF THEOLOGY.

Bursars in the Faculty of Theology are required to attend each session the Divinity Class and any two of the three classes of Hebrew, Church History, and Biblical Criticism.

FOUNDATION.	No. of Bursaries.	Period of Tenure.	Approximate Annual Value of each.
		Years.	
Adam, John, - - - - -	3	4	£18
Black, - - - - - -	2	3	£12
Boyd and Sanders, - - - -	1	3	£13 16 8
Boyd and Wilson, - - -	1	3	£24 6 8
Brown or Ettles, - - -	2	3	£27
Dundonald, - - - - - -	6	3	£11 2 6
ohn Ferguson, - - - -	1	3	£36
Gilhagie and Struthers, - - -	1	3	£19 12 8
Hamilton, - - - - -	3	3	£25
Hastie, - - - - - -	2	3	£27
Logan, - - - - - -	1	3	£16
Lorimer, - - - - - -	4	3	£25 and £17
Lumsden, - - - - -	1	4	£18
Macfarlane, James, - - - -	1	3	£35
Marshall, - - - - - -	1	4	£17
Morgan, - - - - -	8	1	£20
Muir, - - - - - - -	1	3	£34
Muir Divinity, - - - - -	2	2	£25
otman, - - - - - -	1	3	£18
oss, John, jun., - - - -	1	3	£35
ing William's, - - - - -	2	3	£20

BURSARIES IN THE FACULTY OF LAW.

unninghame, Andrew, - - -	2	1	£37
acfarlane, Robert, - - - -	3	3 and 1	£33
erchants' House, - - - -	1	3	£25
obertson, R. W., - - - -	1	1	£30
alkinshaw-Young, - - - -	1	2	£18
ajor Young's Fund, - - - -	2	6 and 2	£26

BURSARIES IN THE FACULTY OF MEDICINE.

FOUNDATION.	No. of Bursaries.	Period of Tenure.	Approximate Annual Value of each.
		Years.	
Arthur,[1]	1	3	£20
Brisbane,	1	4	£40
Davidson,	1	3	£34
Gardiner,[2]	1	2	£14
Gibson, Dr. Thomas,[2]	1	4	£36
Glasgow Highland Society,	6	5	£25
Logan,[2]	1	4	£16
Lorimer,	4	3	£25 and £17
Macarthur,	1	2	£20
Macfarlane, John,	1	3	£48
Mackintosh,[2]	1	1	£31
Marshall,	1	4	£17
Merchants' House,	2	4	£25
Monteith, John,	2	2	£21
Oliphant, John,	1	6	£35
Paterson, James A.,	8	4	£25 and £20
Rainy,	2	2	£20
Walton,	1	4	£35
Weir, Andrew,	1	1	£18

BURSARIES IN THE FACULTY OF SCIENCE.

Agricultural College,	5	4	£40 and £35
Cuthbertson, Donald,	1	3	£35
Kerr, Malcolm,	2	3	£25
M'Ewen, Malcolm (Arts or Science),	1	4	£16
Metcalfe,	4	2	£25
Muir (Civil Engineering),	2	1	£13
Oliphant, John (Engineering),	1	3	£35
Pender Memorial,	1	1	£60
Shipwrights' Company,	1	3	£50
Strang,	4	3	£20
Young, George,	1	1	£38

BURSARIES IN THE FACULTY OF ARTS.

Bursars in the Faculty of Arts are required to attend at least two classes each session

Adam, James,	2	4	£11
Adamson,	1	3 or 4	£20
Barbour (Kilbarchan),	1	3	£25
Biggart Memorial,	10	4	£25
Black,	2	4	£21
Blackquarry School,	1	4	£14
Brand,	3	4	£29
Brown, Ebenezer,	1	3	£38
Browne (Ayrshire),	2	4	£22
Brown-Paton,	2	3	£17
Buchanan,[2]	2	3	£14
Campbell,[2]	2	3 or 4	£10
Clark, John (Mile-end),[2]	24	4	£30
Cowan,	1	3	£26 13/4
Craig,	1	4	£25
Craig, Archibald,[2]	1	2	£9

[1] Open to women students only. [2] Both men and women are eligible.

BURSARIES IN THE FACULTY OF ARTS—*Continued.*

FOUNDATION.	No. of Bursaries.	Period of Tenure.	Approximate Annual Value of each.
		Years.	
rawford and Brown,[1]	1	4	£19 13 4
avidson,	1	3	£34
uncan's Bute,	2	4	£38
undonald,	8	4	£40
wing, James,	4	4	£20
orfar,[1]	5	4	£58
orrester,[1]	1	3	£20
oundation,[1]	2	4	£20
ranco-Scottish Society,[1]	4	1	£30
ullarton of Overton,	5	2	£22
ardiner,[1]	1	2	£14
artmore,[1]	1	3	£22
eneral Council,[1]	5	3 or 2	£20
lasgow City Educational Endowm'ts,[1]	20	4 or 2	£25
rant, George,[1]	1	3 or 4	£40
rant, George, jun.,[1]	1	4	£40
amilton,	3	3	£20
amilton Educational Trust,[1]	3	3	£20
annay,	3	3	£15
astie,[1]	1	4	£27
ighland Society, Glasgow,[1]	12	3	£20
ill,[1]	2	3	£15
owison and Gilchrist,	1	4	£40
utchesons' Educational Trust,	20	4	£20
yndford and Ross,	1	4	£40 16 8
affrey, John Ferguson,	1	2	£32
err, Malcolm (Nat. Phil.),	1	3	£25
aing, Alexander,	1	3	£20
aing, James,[1]	8	4	£25
antine,[1]	6	2	£27
eadbetter,	1	4	£9
eyden, John,	1	3	£14
ochhead, James,	1	3	£17
ochhead and Mitchell,	2	4	£34
orimer (Phil.),	4	3	£25 and £17
orimer (Math.),[1]	4	3	£25 and £17
usk,	1	3	£37
'Crie,	4	4	£25
'Culloch,	1	4	£18
acDougall,	3	3	£33
'Ewen, Malcolm (Arts or Science),	1	4	£16
'Farlane, Robert (Arts or Law),	1	3	£33
acGrouther,	2	4	£20 and £15
'Kissack,	1	4	£20
aclean Trust,[1]	4	4	£25
aitland Club,	1	—	£6
anderson, Alexander,[1]	1	3	£15
arshall Trust,[1]	20	5	£30
eiklejohn, William,	1	4	£20
nzies,	4	4	£45
rchants' House,	1	4	£25

[1] Both men and women are eligible.

BURSARIES IN THE FACULTY OF ARTS—*Continued.*

FOUNDATION.	No. of Bursaries.	Period of Tenure.	Approximate Annual Value of each.
		Years.	
Monteith,	3	3	£15
Morgan,	16	1	£20
Muir (Mathematics, Senior),	1	1	£17
Muir (Mathematics, Junior),	1	2	£8 10/
Paterson, James,	1	4	£22
Paterson, James,	1	3	£17
Paterson, James A.,	8	3	£30, £20, and £10
Patrick,	3	4	£32
Perthshire Society,	1	3	£25
Pollock,	3	3	£38
Ramsay-Walker,	2	4	£15
Scott (Sir Walter),[1]	4	4	£25
Stevenson of Dalry,	2	4	£33
Stewart, A. & B.,[1]	10	4	£20
Stewart,[1]	3	4	£15
Thomson, James (Philosophical),	1	2	£11
King William's,[1]	2	3	£15
BURSARIES IN THE FACULTIES OF ARTS AND THEOLOGY.			
Ardkinglass,	1	6	£9 10/
Buchanan (Bellfield),	2	7	£47
Leighton,	1	3	£18
Williams,	4	3 or 4	£40
BURSARIES IN THE FACULTIES OF ARTS OR THEOLOGY.			
Lamb,[1]	1	—	£12
Simson,	1	—	£18
BURSARIES IN THE FACULTIES OF LAW OR MEDICINE.			
Stewart, A. & B.,[1]	4	3	£50
BURSARIES IN THE FACULTIES OF ARTS, LAW, OR MEDICINE.			
Macdonald,	2	4	£17
William Whyte,	4	4	£25
BURSARIES IN THE FACULTIES OF THEOLOGY, LAW, OR MEDICINE.			
Armagh,[1]	3	3	£52
Bell,	—	—	£50
Hutcheson, Thomas,	1	4	£11 2/2¾
BURSARIES IN ANY FACULTY.			
Ayrshire Society,[1]	4	3	£15
Denny,[1]	4	4	£30
Dumfriesshire Society,[1]	2	4	£15
Ferguson, James,	2	2	£100
Forrest,	5	5 or less	£22
Gibson, John,	2	3	£20
Hart,	2	5	£30
Kintyre (Ker),	1	3	£20
Kintyre (Alexander Love),	1	4	£11
M'Kechnie,	2	4	£35
Pratt,[1]	2	4	£20
Shearer,	3	3	£30
Smith,	1	4	£18
Stillie,[1]	1	1	£5
Taylor,[1]	2	4	£10

---

[1] Both men and women are eligible.

B. BURSARIES (ALPHABETICALLY ARRANGED).

JAMES ADAM BURSARIES (*Arts*). These bursaries were founded , the Rev. James Adam, Minister of Cumbrae, who died in 1830, id were originally three in number. In appointing to one of the ırsaries, preference was given to the kindred of the founder, and appointing to another to students of the name of Adam. By rdinance No. 80 of the Universities Commission (1889) these strictions were removed, and the three bursaries were combined to two of equal value. The bursaries are tenable for four years, it if a bursar graduate at the end of three years he shall only tain his bursary during the fourth year of tenure if he shall igage in a course of study approved by the Senate in subjects cluded in the curriculum for Degrees in Arts or in Pure Science. ı other respects the provisions of University Court Ordinance o. XXVII. apply to these bursaries. The appointment is vested the Earl of Glasgow, the Professor of Divinity, and the Minister Cumbrae, the exercise of their patronage being regulated by ections xiv.–xvii. of said Ordinance. Value, about £11 per annum ch.

Bursars—[1] James B. Gordon, 1905; Ernest Evans, 1906.

JOHN ADAM BURSARIES (*Theology*). Three in number, founded Mr. John Adam, of the Inner Temple, who died in 1836. The under gave a preference to his own kindred and to students of the ame of Adam or Dollar. By Ordinance No. 57 of the Universities ommission (1889) this preference was cancelled. They are open competition to students in Theology of the first year; and, after amination, are adjudged to the three students who shall be de- ared to be the most deserving, and to have made the highest tainments in Latin, Greek, Logic, Moral and Natural Philosophy, id Mathematics. The trustees and patrons are the Principal, the rofessor of Theology, and the five Professors of the Gown Classes. hese Bursaries are tenable for four years, subject to the provisions University Court Ordinance No. XXVII., Section v. Value, 18 to each bursar. (One vacancy).

Bursars—[1] John A. Steele, 1906; Alexander Moir, 1907; John . Davidson, 1908.

ADAMSON BURSARY (*Arts*).—This Bursary was founded by the ev. David Adamson, minister of Fintry, in 1674, for a student in hilosophy, and was restricted to sons of freemen in one of the seven ıcorporate Trades of Stirling. This restriction was removed by rdinance No. 57 of the Universities Commission (1889). The Bursary tenable for four years by a student entering the Greek Class, for ree years by a student entering the Logic Class; and the appointment is vested in the Convener Court of Stirling. Value, the free proceeds of the capital, which now amounts to about £500.

---

[1] Vacant through resignation.

Bursar—[1] David Bennett, 1908.

Agricultural College Bursaries (*Science*).—The Governors of the West of Scotland Agricultural College have instituted a scheme of Bursaries, of the value of £40 and £35 respectively, each tenable for four years. They are awarded on the results of the Science Preliminary Examination held in Autumn. Bursars must attend the curriculum of classes in Glasgow, and comply with the conditions required to qualify for the degree of B.Sc. in Agriculture of the University of Glasgow, and must further present themselves at the examinations for the National Diploma in Agriculture. Further particulars may be ascertained by applying to Principal Wright, 6 Blythswood Square, who will receive applications up to 15th August. (Two vacancies.)

Bursars—Daniel G. O'Brien (£40), 1906; William Strang (£35), 1907 (three years); Edward M. Melville (£40), 1908; John A. Gunn (£35), 1908.

Ardkinglass Bursary (*Arts and Theology*).—This Bursary was founded in 1733, by Sir James and Lady Campbell, out of a fund which Colonel John Blackader of Barndennoch, Glencairn, Dumfriesshire, had by his Will set aside for pious uses, and was tenable for eight years—five in Languages and Philosophy, and three in Divinity. It is now regulated by Ordinance No. 87 of the Universities Commission (1889). A bursar may hold the Ardkinglass Bursary for three years in the Faculty of Arts, and for three years in the Faculty of Divinity, and no longer; but a bursar, who at the end of the third year of his tenure has failed to pass all the examinations necessary for graduation in Arts, shall forfeit the Bursary, and in that event it shall be lawful for the patron to nominate a candidate, who shall be a Master of Arts, or shall have passed the examinations necessary for admitting him to that Degree, and shall be entering on his course of study in the Faculty of Divinity; failing such nomination by the patron, the Bursary shall be awarded by the Senate to a candidate qualified as aforesaid, under such conditions as the Senate shall prescribe, but a Bursar thus nominated shall not hold the Bursary for more than three years. In other respects the provisions of University Court Ordinance No. XXVII. apply to the Ardkinglass Bursary. Patron, Mr. George F. W. Callander of Ardkinglass and Craigforth. Value £9 10s.

Bursar.—Thomas M'Aughtrie, 1907.

Armagh Bursaries (*Theology, Law, or Medicine*).—Three in number, founded in 1733 by Hugh Boulter, Archbishop of Armagh, who endowed the College with the annual rent of certain lands in the neighbourhood of Glasgow. By ordinance of the Universities

---

[1] Vacant through resignation of Bursar.

Commission (1858) these three Bursaries were raised from £15 to £25 per annum each (the funds having accumulated through vacancies), and the restrictions as to birthplace were removed.

Further regulations were laid down in Ordinance No. 92 of the Universities Commission (1889). The Bursaries are now each of the annual value of £52, and are open by competition to students who are presenting themselves for the final examination for the Degree of Master of Arts with Honours in the following rotation: (1) Classics, (2) Mental Philosophy, (3) Mathematics and Natural Philosophy. They are tenable for three years, during which the holders must give regular attendance on the classes of this University, as students of Theology, Law, or Medicine. In other respects the provisions of University Court Ordinance No. XXVII. apply to the Bursaries on this Foundation. In October, 1909, one Bursary, tenable for three years, will be open to competition, the subject of examination being Mental Philosophy.

Bursars—[1] George R. Robertson (Mental Philosophy), 1906; George Anderson (Math. and Nat. Phil.), 1907; Wallace M. Conley (Classics), 1908.

ARTHUR BURSARY OR SCHOLARSHIP (*Medicine*).—Founded in 1892 by Mrs. Arthur of Barshaw. This Bursary is at present of the annual value of £20. It is open to women students in the Medical School at Queen Margaret College. It is to be awarded by the Trustees to the student who shall take the highest place among the Queen Margaret College candidates at the First Professional Examination held in the University before the commencement of the winter session in which an appointment falls to be made, provided always that a candidate may take part of her examination in the March or April preceding. If two students are of equal merit, the Bursary will be divided between them, and if more than two are equal, a special examination may be held to determine who shall be the recipient. The Bursary is tenable for three years, subject to the condition that the Bursar prosecute her medical studies with the approval of the Trustees.

Bursar or Scholar—Lucy M. Ross, 1907.

GLASGOW AYRSHIRE SOCIETY'S BURSARIES (*Any Faculty*).—Four in number, founded in 1868 and 1879 by the Glasgow Ayrshire Society, and consisting of the free annual proceeds of a sum of £1,501 11s. subscribed by members of the Society, to be devoted to the establishment of bursaries in the University of Glasgow, and invested for that purpose. The bursaries, which are at present £15 per annum each, are tenable for not more than three years, and are open to applicants of either sex between the ages of 14 and 24, who are descendants of members of the Society, or natives of Ayrshire, or sons or daughters of natives resident in Glasgow, who are in circumstances rendering the aid of a bursary necessary or desirable. Patrons—the Directors and Office-bearers of the Society. Secretary, Mr. Alexander M'Lennan, 58 Bath Street, Glasgow.

---

[1] Vacant through lapse of time.

Bursars—[1] Joseph Dunbar, 1906; [1] Elizabeth F. Stevenson, 1906; Matthew W. Neilson, 1907; John Frew, 1908.

BARBOUR KILBARCHAN BURSARY (*Arts*).—Founded in 1887 by the Executors of Miss Mary Barbour of Plymouth Grove, Manchester, who bequeathed £500 free of legacy duty for the purpose of endowing a scholarship for the Board School of Kilbarchan, Renfrewshire. The bursary is open to students of the first year, and is tenable for three years. Candidates must not exceed the age of eighteen years, must produce a certificate from the Kilbarchan School Board that they have attended three years at the Kilbarchan Village or Town Board School, are of irreproachable character, and have given satisfactory evidence of good natural ability, diligence and proficiency in their studies, and must be examined at the ordinary Bursary Examination. The annual value is about £25.

Bursar—[1] Alexander M'Crorie, 1906.

BELL BURSARIES.—Mrs. Mary Allan Bell, of Nether Culzean, Maybole, who died on 7th February, 1899, at Glenae, Dumfries, in her Trust Disposition and Settlement of date 21st October, 1895, directed her Trustees, after the death of her husband, to apply the income of the residue of her estate in perpetuity in providing bursaries of £50 each for necessitous deserving students of Medicine, Law, or Theology in this University. Only those who have gone through the Arts curriculum are to be eligible, with a preference, *cæteris paribus*, first to the name Turnbull, and next to the name Macdowall. The Bursaries are to be awarded by competition, the examination being conducted both orally and in writing by two examiners appointed by the Trustees. Each Bursary is to be tenable for three or four years, as the Trustees may decide.

BIGGART MEMORIAL BURSARIES (*Arts*).—Founded in 1876 by Mr. Thomas Biggart of Baidlandhill, Dalry, Ayrshire, in memory of his son, Thomas Biggart, an alumnus of Glasgow University, who died in 1874. The bursaries are open to competition at the annual Bursary and Preliminary Examination to students who are entering on the Arts Course at the University of Glasgow, with a view to the ministry of the United Free Church, and are designed to enable such students more easily to pursue that curriculum and obtain, as far as practicable, the Degree of Master of Arts.

The bursaries are tenable for four years, and the yearly value of each is £25. The Bursary Fund consisted of the sum of £6,000, and the deed of foundation provided that the surplus revenue, if any, may be applied to prolong the tenure of any of the bursars for a fifth year, or to the granting of additional bursaries on the same conditions as are applicable to the others.

---

[1] Vacant through lapse of time.

Each bursary is payable by equal moieties on the second day of February and at the close of the winter session; and the bursar, on applying to the Principal for a precept for the second moiety, is required in each year to produce, besides the usual certificate from the Professors, a certificate signed by the Chairman and the Clerk (Rev. Alexander Duncan, M.A., 173 Bruntsfield Place, Edinburgh), of the Theological Committee of the United Free Assembly, to the effect of his being recognised by that Church as an accepted student, pursuing his studies with a view to the ministry therein. (One Vacancy.)

Bursars—[1] John V. M'Lean, 1905; James B. Primrose, 1906; Samuel W. Wilson, 1906; William Black, 1907; William Hamilton, 1907; Robert Weir, 1907; Alexander Ferguson, 1908.

Black Bursaries (*Arts*).—Founded by Mrs. Janet Black, widow of the Rev. William Black, D.D., Minister of the Barony Parish, Glasgow. Mrs. Black died in 1876, and by her Settlement, made provision, *inter alia*, for the institution of two bursaries in Arts, each of which is now of the annual value of £21. The bursaries are open to competition to students entering on their first session in the University, and are awarded to students who, having passed the Arts Preliminary, have gained the highest marks in Mathematics in the Bursary Examination, and have not obtained a bursary in the general competition. The bursars are required to attend the qualifying courses for a degree in Arts.

Bursars—John M. M'Neill, 1906; David P. Hutton, 1908.

Black Bursaries (*Theology*).—Founded by Mrs. Janet Black—who died in 1876—in memory of her husband, William Black, D.D., Minister of the Barony Parish of Glasgow. The bursaries are entrance bursaries, two in number, each of the annual value of £42, tenable for three years. The competition is open to candidates holding a degree in Arts in any Scottish University, or who have passed their examinations in any four subjects taken from at least two departments for graduation in Arts. Candidates must be members of the Established Church of Scotland.

Bursars—[1] Matthew Stewart, M.A., 1906; Douglas D. Robertson, M.A., 1908.

Blackquarry School Bursary (*Arts*).—Founded in 1876 by the Trustees of the Blackquarry School, Port-Dundas, Glasgow. The Police Board of Glasgow having acquired the school compulsorily under "The Glasgow Police Acts," the Trustees resolved to apply the proceeds, after payment of all claims upon the institution, in founding a Bursary in the University of Glasgow. The Bursary is open to competition to Students in the Faculty of Arts on their first entering the University, under the same regulations as those of the competition Bursaries in the University, and is tenable for four years, subject to the condition that the Bursar shall attend the qualifying course for the Degree of M.A. Value, the annual income of a sum of £420 (about £14). (Vacant.)

---

[1] Vacant through lapse of time.

BOYD AND SANDERS BURSARY (*Theology*).—In 1635, Mr. Zachary Boyd founded three Bursaries for students in Divinity, tenable for two or four years, each of the value of £5 10s. per annum. The appointment to one of these was vested in the Merchants' House of Glasgow; and the patrons of the other two were the members of the City Council. Preference to burgesses' sons, particularly of the name of Boyd.

The Bursary, value £5 10s., in the gift of the Merchants' House of Glasgow, and the Sanders Bursary, value £8 6s. 8d., founded in 1728 by Mr. Robert Sanders of Auldhouse, also in the gift of the Merchants' House, were, by an order obtained under the authority of the Endowed Institutions Commission in 1880, conjoined into one Bursary of £13 16s. 8d. per annum, tenable for not more than three years by a student attending the ordinary curriculum in the Faculty of Theology at the University of Glasgow. The preference, *cæteris paribus*, to the names Boyd, Sanders, Corbet, Colquhoun, and Wardrop, was cancelled by Ordinance No. 57 of the Universities Commission (1889). When a vacancy occurs applications are to be lodged with Wm. H. Hill, LL.D., Clerk of the Merchants' House, on or before 15th August.

Bursar—John MacLean, 1907.

BOYD AND WILSON BURSARY (*Theology*).—By ordinance of the Universities Commissioners of date 17th May, 1862, the two Boyd Bursaries in the gift of the Magistrates and Town Council of Glasgow (see above) were conjoined into one, tenable for three years, the Bursar to be M.A. By an ordinance of the same date the two Bursaries, value £6 13s. 4d. per annum each, which were founded by Mr. Michael Wilson in 1640, and placed under the same patronage, were also conjoined into one, tenable for three years, the holder to be M.A. in regular attendance at the University as a student of Theology. Restrictions as to kindred, etc., were in both cases abolished.

This Boyd Bursary and this Wilson Bursary were, by Ordinance No. 78 of the Universities Commission (1889), conjoined into one Bursary, called the Boyd and Wilson Bursary, value £24 6s. 8d. per annum. The holder must be a Master of Arts of a Scottish

University. The Bursary is tenable for three years, provided that the Bursar shall, during that period, give regular attendance as a student of Theology in Glasgow University. When a vacancy occurs, applications are to be lodged with the Town Clerk, City Chambers, not later than 15th August.

Bursar—Thomas M'Vittie, 1908.

BRAND BURSARIES (*Arts*).—Mr. Robert Brand, son of the late Mr. Robert Brand, coalmaster, Wishaw, by his Trust Disposition and Settlement, dated 28th June, 1873, directed his Trustees to pay to the Senatus of the University of Glasgow the sum of £2,000, the income of said sum to be applied in payment of three Bursaries in Arts for the behoof of students in the University who shall be studying with a view to the ministry of the United Free Church. Mr. Brand died on 3rd July, 1873, but, in consequence of litigation, it was not till January, 1875, that the bequest, amounting, with interest, to the sum of £2,121 7s. 5d., was paid by the Trustees to the Senate. The Bursaries, which are tenable for four years, are of the annual value of about £29 each, and are awarded by public competition to students entering their first or second session in the Faculty of Arts; the Bursars to graduate as M.A. at the end of their course.

Bursars—[1] Hector J. W. Hetherington, 1905; John Paterson, 1906; James Kellock, 1907.

BRISBANE BURSARY (*Medicine*).—Founded by Miss Christian Brisbane in 1777, in fulfilment of the intentions of her brother, Dr. John Brisbane of Badbegno. Their father, Dr. Thomas Brisbane, was the first Professor of Anatomy in this University.

It is tenable by a student of Medicine for four years, and the salary is about £40 per annum. The family of Brisbane and the University present alternately. The patronage on this occasion lies with the University. Candidates must be under twenty-two years of age, and must have the Degree of M.A.

The preference formerly given to the kin of the founder was cancelled by Ordinance No. 57 of the Universities Commission (1889).

Bursar—William S. Martin, M.A., 1908.

BROWN BURSARY.—See Crawfurd and Brown, p. 356.

BROWN OR ETTLES BURSARIES (*Theology*).—Two in number, founded in 1867 by Miss Ettles of Inverness, in memory of her brother-in-law, Dr. E. Brown, an alumnus of this University. The Bursaries consist of the annual interest and proceeds of a sum of £1,000, and are open to competition to first year's students of

---

[1] Vacant through lapse of time.

Divinity who have passed all the examinations required for the ordinary Degree of M.A.; with a preference, *cæteris paribus*, to such as can speak Gaelic. The Bursaries are now each of the annual value of £27, and are tenable for three years.

Bursars—Andrew Currie, M.A., 1908; Anson R. C. Wood, 1908.

Ebenezer Brown Bursary (*Arts*).—Founded in 1884 under the Trust Disposition and Settlement of Mr. Ebenezer Brown, export bottler, West Campbell Street, Glasgow. Mr. Brown, who died on 31st July, 1883, bequeathed to the Senate the sum of £1,000, free of legacy duty, for the purpose of founding and maintaining a bursary in the Faculty of Arts, to be granted to the student who shall stand highest in a competitive examination on such subject or subjects in Arts as the Senate may prescribe. The Senate have full power to vary such subject or subjects from year to year, and to lay down such regulations regarding the bursary as they may see fit. The bursary is open to competition to all students entering on their first or second year of attendance, provided that no student in his second year shall be eligible who on entering upon his first year of attendance passed the whole Preliminary Examination. It is tenable for three years. Present value, £38 per annum.

Bursar—George M. D. Short, 1908.

Browne (Ayrshire) Bursaries (*Arts*).—Two in number, tenable for four years, and each of the annual value of about £22, founded in 1871 by Mr. Hugh Browne, residing at Darvel, in the county of Ayr, who for this purpose, and in memory of his brother, the late Dr. Alexander Browne of Buenos Ayres, mortified to the University of Glasgow the sum of £1,000. The bursaries are awarded by competition. Candidates must be natives of the county of Ayr, or must have been educated for not less than four years in a school within the said county, and must be entering on their first session at the University.

Bursars—John P. Weir, 1906; Andrew M'Cracken, 1908.

Brown-Paton Bursaries (*Arts*).—Founded in 1891 by Mr. Andrew Brown-Paton, Liverpool, in memory of his father, mother, and thre sisters. The bursaries are two in number, and are tenable for thre years. They are open for competition to students of the first year with a preference to natives of the parishes of Loudon or Galston i Ayrshire. Should no candidate from either of these parishes com up to the standard of the Entrance Examination then held i Arts, the bursaries are open to candidates from any part of Ayrshire Failing qualified candidates from Ayrshire, the bursaries are open t all students of the first year. In case of a vacancy, otherwise tha by lapse of time, a student of the same standing is appointed by th Senate by examination or otherwise. Each bursar receives one hal of the free proceeds of the capital sum, £1,000, paid over to the Uni versity Court by the founder. The present annual value of each bursary is £17.

Bursars—[1] Andrew Inglis, 1906; Robert Dalziel, 1908.

Buchanan Bursaries (*Arts*).—Founded by the late Robert Buchanan, LL.D., Ardtillayne, Dunoon, formerly Professor of Logic and Rhetoric in the University of Glasgow, by Codicils to his Will, dated 26th December, 1871, and 26th March, 1872, in which, as a "token or expression of his gratitude and respect to the University of Glasgow, with which, as a student, or Professor, or member of the University Court, he had been connected for the space of fifty years," he bequeathed the sum of £1,000 for the purpose of founding a Bursary or Bursaries for students in the Faculty of Arts, on the conditions that may appear to the Senatus best for the interests of the University. The Senate resolved to apply the annual proceeds to the support of two Bursars in Arts, each to hold his Bursary for three years, subject to the usual condition of attending two of the classes of the curriculum in each session; the Bursars to be appointed by competitive examination among students of either sex of the first year. The Bursaries are awarded to competitors who, having passed the Arts Preliminary, have gained the highest marks in Dynamics in the Bursary examination, and have not obtained a bursary of greater value in the general competition. Present value, £14 to each Bursar.

Bursar—Herbert Le May, 1908.

Buchanan (Bellfield) Bursaries (*Arts and Theology*).—Founded in 1875, in accordance with the Trust Disposition and Deed of Settlement of the late Misses Margaret Jane and Elizabeth Buchanan of Bellfield, Glasgow. The Bursaries are two in number, and consist of the yearly proceeds of a sum of £4,200, vested in Reduced 3 per cent. Annuities. Open to matriculated students who may be prosecuting their studies at the University of Glasgow, with a view to their becoming licentiates and clergymen of the Established Church of Scotland. The Patrons are the Principal and such of the Professors as hold their appointments from the University Court. The Bursaries are tenable during the whole curriculum "or such portion thereof as to the said Principal and Professors may seem proper." The Bursars are appointed by competitive examination among students of the first and second years in Arts. Present value, £47 per annum to each Bursar.

Bursars—Alexander B. Harper, 1903; Robert J. Thomson, 1904.

Campbell Bursaries (*Arts*).—In 1908 the Trustees of the late Miss Mary Campbell, Clarkston, handed over to the University a sum of £800 for the purpose of founding and endowing two Bursaries in the University of Glasgow. The Senate are the Patrons. The Bursaries are open to students of either sex who are entering on the first or second year of their studies in Arts, and are awarded on the results of the general bursary competition. They are tenable in the case of students appointed in the beginning of their first year for four years, and in the case of students appointed in the beginning of their second year for three years. Should a bursar graduate before the expiry of his period of tenure he may continue to hold his bursary during the remainder of the period, provided that he shall engage in a course of study approved by the Senate in subjects included in the curriculum for Degrees in Arts or in Pure Science. The annual value of each is £10. One appointment will be made in 1909.

---

[1] Vacant through lapse of time.

George A. Clark Bursaries or Scholarships (*Arts, etc.*).—(See under "Scholarships.")

John Clark (Mile-End) Bursaries (*Arts*).—Founded in 1868, in accordance with the Trust Disposition and Deed of Settlement of the deceased Mr. John Clark, junior, of the firm of John Clark, junior, & Co., thread manufacturers, Mile-End, Glasgow. By a Deed of Constitution of date 1st August, 1866, the "Clark Bursary Fund" is placed under the management of twelve trustees. The Bursaries are to be at least two in number, of the annual value of £30, open for competition to all Protestant students of good moral character, sons or daughters of Protestant parents, entering on their first session in the Faculty of Arts (a preference, *cæteris paribus*, given to orphans), and are tenable for four years, subject to the condition that the Bursars proceed through the curriculum of Arts in Glasgow University. On 29th October, 1897, the Trustees resolved that it should not be competent for any one appointed after that date to a John Clark (Mile-End) Bursary to hold any other Bursary or Scholarship concurrently with it, except with the consent of the Trustees. The competition is to be in writing, and the trustees are to appoint the subjects of examination. The Bursary fund consists of the residue of the Testator's estate, said residue amounting to upwards of £35,000. Six Bursaries on this foundation will be open to competition in October, 1909; and will be awarded, four for general excellence, one for special excellence in French, and one for special excellence in German. Awards for the Bursaries for French and German are made only to competitors who have passed the Arts Preliminary and have not obtained any Bursary for general excellence.

Bursars—[1] Alexander R. Brown, 1905; [1] Helen B. S. Lennox, 1905; [1] Ruth E. Marwick, 1905; [1] James Porter, 1905; [1] Nettie H. Stein (German), 1905; [1] Isabella Davidson (French), 1905; William

---

[1] Vacant through lapse of time.

S. Buchan, 1906; Isabel Robertson, 1906; John Agnew, 1906; William Kerr, 1906; Marion S. Orr (French), 1906; David D. Anderson (German), 1906; Andrew Browning, 1907; John Logie, 1907; Matthew W. Robieson, 1907; William D. Robieson, 1907; Catherine M. M'Kinnon (French), 1907; Cecilia Brockie (German), 1907; John A. Black, 1908; Alexander B. Muir, 1908; David G. Ramsay, 1908; James White, 1908; Mary Brockie (French), 1908; John Phemister (German), 1908.

COWAN BURSARIES (AYR ACADEMY) (*Arts*).—These Bursaries were founded by the late David Cowan, Esq., of Auchendrane, who bequeathed to the Directors of the Ayr Academy the sum of £2,000, to be invested and held by them in trust, and the annual income thereof applied as Bursaries, to promote the education of two students, one at each of the Universities of Edinburgh and Glasgow, who should have received their previous education, or part of it, at Ayr Academy. These Bursaries are now administered by the "Ayr Educational Trust." Under Scheme 328, Section 26, of the Educational Endowments (Scotland) Commission, approved by Her Majesty in Council on 8th February, 1890, the Governors are instructed to apply an annual sum of not less than £80 in establishing Bursaries for University education, to be called the Cowan Bursaries, each of the yearly value of not less than £20 nor more than £30. These Bursaries are awarded by competitive examination among those who have been pupils in the Ayr Academy for at least two years before the date of examination, and only those are eligible for appointment who pass the Preliminary Examination occurring first after the termination of their Academy course; unless it can be shown to the satisfaction of the Governors that any student was unavoidably prevented by illness or other necessary cause from appearing at the Examination first occurring, in which case the Governors reserve to themselves the power to allow such students, should they so decide, to compete at the next following examination. The Governors have resolved to award them alternately to students of Glasgow and Edinburgh Universities. The Bursaries are tenable for three years, the total value of each being £80, payable by instalments of £30 per annum for the first two years, and £20 for the third year. No student who has gained a Cowan Bursary shall hold along with it any other Bursary or Scholarship which either singly or in combination exceeds the amount of £10 per annum, without the consent of the Governors. On a vacancy, intending candidates must send in their names and addresses to the clerk and treasurer, Mr. J. H. Goudie, Wellington Chambers, Ayr, before the fifteenth day of August; and the Senate of the University of Glasgow undertakes the examination of candidates who offer themselves for the Bursary to be held at this University. (One vacant.)

Bursar.—David Campbell (three years), 1907.

Craig Bursary (*Arts*).—Founded by Mr. John Craig, merchant in Glasgow, in 1697, for students in Philosophy. Tenable for four years. The preference to kindred of Founder, and students of the name of Craig, was cancelled by Ordinance No. 57 of the Universities Commission (1889). Value, £8 6s. 8d. per annum, increased by the Patrons in 1880 to £25. Appointment by the Merchants' House. Applications to be lodged with W. H. Hill, LL.D., Clerk to the Merchants' House, on or before 15th August of the year in which a vacancy occurs.

Bursar—Robert T. Clark, 1906.

Archibald Craig Bursary (*Arts*).—The Rev. Archibald Craig, some time minister of the Free Church at Dalton, thereafter residing at Eaglesham, who died on 10th March, 1873, by his Will, dated 4th March, 1873, bequeathed a sum which, with accretions, amounted in 1884 to £250, to be devoted to the foundation of a Bursary in the University of Glasgow. The Trustees of the Bursary Fund are —the Minister for the time being of the Parish of Eaglesham, the Minister for the time being of the United Presbyterian Church, Newton-Mearns, and certain other gentlemen. The Bursary was founded in 1884. It is open to competition, at the annual Bursary Examination, to students of either sex entering on the first session of attendance at the University, who are natives of the parishes of Eaglesham or Mearns, or who for two consecutive years have attended school in either of said parishes ; is awarded by the Senate in accordance with the result of that examination ; and is tenable for the first two years of such student's attendance at the University. The Bursary is payable at the close of the winter session. Should the Bursary be in abeyance during any session or sessions, from failure of students falling under the above description, the accumulation may, in the discretion of the trustees, be applied to the increase of the Bursary in any subsequent session or sessions, or may be added to the capital fund.

Bursar—Mary Alexander, 1908.

Crawfurd and Brown Bursary (*Arts*).—The Crawfurd or Bishop's Bursary was founded by Captain Thomas Crawfurd of Jordanhill in 1576, and was appropriated to a student in Languages. It was tenable for four years, the value being a chalder of meal. The Patrons were the Principal and the Professors of the University. The foundation was remodelled by ordinance of the Universities Commission, dated 7th June, 1862. The Brown Bursary was founded in 1697 by Colonel Brown of Maryland. It was tenable for four years. The annual value was £5, increased in 1880 to £6 13s. 4d. by an addition from the Students' Bursary Fund. This Bursary, being also in the patronage of the Principal and Professors, was combined with the Crawfurd Bursary by Ordinance No. 81 of the Universities Commission (1889), the joint bursary to be called the Crawfurd and Brown Bursary. The preference as to kindred attaching to the Brown Bursary was abolished. The Crawfurd and Brown Bursary is tenable for four years, the annual value being £19 13s. 4d. If a bursar graduate at the end of three years, he shall only retain his Bursary during the fourth year of tenure, if he shall engage in a course of study approved by the Senate in subjects included in the curriculum for Degrees in Arts or in Pure Science. In other respects the provisions of University Court Ordinance No. XXVII. apply to this Bursary.

Bursar—Joseph W. P. Harkness, 1908.

Andrew Cunninghame Bursaries (*Law*).—Mr. Andrew Cunninghame, Town Clerk Depute of Glasgow, who died in 1886, bequeathed to the University, free of legacy duty, £5000, for the purpose of completing the tower, and also £350, the annual revenue of which was to be applied in purchasing a gold medal as a prize in the class of Mathematics. He also bequeathed to the Senate £2000 for founding two Bursaries in connection with the Scots Law and Conveyancing Classes. The following regulations were adopted by the Senate on 6th April, 1905:

1. The Bursaries shall be of equal value, and tenable for one year.
2. One Bursary shall be awarded on the report of the Professor to the best student in the Class of Scots Law, and one Bursary shall be awarded on the report of the Professor to the best student in the Class of Conveyancing.
3. The Bursaries may be held along with any other Bursary or Prize.
4. The Bursaries shall be awarded at the close of the winter session and shall be payable at the usual times of payment in the academic year next following, on production of certificates showing that the Bursars are attending some class or classes in the Faculty of Law not attended in a previous year: Provided that the minimum attendance certified be in one class having eighty lectures or in two classes each having forty lectures.

Under these regulations appointments to both Bursaries will be made in March or April, 1910. Present value of each, £37.

Bursars—William Clark (Scots Law), 1909; John Henderson (Conveyancing), 1909.

Donald Cuthbertson Bursary (*Science*).—Founded in 1900 by Sir John Neilson Cuthbertson, LL.D., and his son Thomas William Cuthbertson, M.A., Trustees of Donald Cuthbertson, LL.B., Accountant in Glasgow, who died on 8th December, 1864. The Bursary Fund amounted to £1,000, being the accumulated revenue and principal of £500 out of the residue of the Testator's estate. After the death of Sir John on 26th January, 1905, his son having predeceased him on 7th May, 1904, the administration of the Fund and Bursary passed, in terms of the Deed of Foundation, to the University Court. The regulations fixed and adopted by the Trustees are to continue in force, and are *inter alia* the following:— 1. The Bursary shall be awarded to a student entering on his course with a view to graduate as B.Sc. in Pure Science, account being taken of the proficiency he has shown in passing the Science Preliminary Examination. 2. The Bursary shall be tenable for a period of three years, provided the Bursar continue his attendance on classes in the University during that period. The present annual value is £35.

Bursar—[1] Norman V. Lothian, 1906.

DAVIDSON BURSARIES (*One in Arts and one in Medicine*).—Two in number, founded in 1881, in terms of the Trust Disposition and Settlement of Mrs. Eliza Davidson, who bequeathed £2,000 for that purpose, the one bursary being in memory of her husband, John Davidson, surgeon, Newmilns, and the other in memory of her son, Francis John Ferguson Davidson. A preference is given, *cæteris paribus*, to the Founder's relatives, and to young men natives of the parishes of Muirkirk, Dalserf, Lesmahagow, and London. One of the Bursaries is open to competition to students of the first or second year in the Faculty of Arts, and is tenable for three years, but the second moiety of the third year's Burse is not payable until the bursar shall have passed the examinations in four subjects taken out of at least two Departments for the Degree in Arts. The other Bursary, also tenable for three years, is awarded to the medical student who stands first in the First Professional Examination, provided that his attendance at the classes has not exceeded the requirements of the Ordinance. The present annual value of each is £34.

Bursar in Arts—[1] Robert Thomson, 1906.
Bursar in Medicine—Thomas S. Barrie, 1907.

DENNY BURSARIES (*Any Faculty*).—Four in number, founded in 1875, by the late Peter Denny, LL.D., engineer and shipbuilder, Dumbarton. Value, not less than £30 per annum each, and tenable for four years. Open for competition to all students entering the University who are not under fourteen years of age, and who have been pupils in regular attendance at the Dumbarton Burgh Academy for at least two years, one of which must be immediately preceding the date of such entry. One of the Bursaries will be competed for at the beginning of next session. The examination will be in the same subjects and at the same time as the examination for the other competition Bursaries. The Trustees are Mr. Peter Denny and Mr. Leslie Denny, nominated in 1896 by the Sheriff of Dumbartonshire, the Principal and Professors, and one of the four Assessors of the General Council in the University Court appointed by the four Assessors, or a majority of them, in accordance with the provisions of Ordinance No. 91 of the Universities Commission (1889).

---

[1] Vacant through lapse of time.

Bursars.—[1] William M. Balfour, 1905 ; [2] Catherine M'Coll, 1906 ; Thomas A. Cleghorn, 1907 ; Andrew Mair, 1908.

Glasgow Dumfriesshire Society's Bursaries (*Any Faculty*).—Two in number, the one founded in 1874 and the other in 1876. They are in value £15 per annum each, are tenable for four years, and consist of the annual proceeds of a sum subscribed by members of the Glasgow Dumfriesshire Society and invested for the establishment of Bursaries in Glasgow University. The Bursaries are open to first and second year's students, between the ages of 14 and 27, who are either descendants of members of the Glasgow Dumfriesshire Society, or natives of Dumfriesshire, or sons of natives resident in Glasgow, whose circumstances render the aid of a Bursary necessary or desirable. Application to be made to the Secretary, Mr. Francis Stoddart, 212 St. Vincent Street, Glasgow, not later than 15th August of the year in which a vacancy occurs. There are no bursaries at present.

Duncan's Bute Bursaries (*Arts*).—Founded in 1875 for the benefit of natives of the island of Bute, by Mr. James Duncan of Valparaiso, and afterwards of Rothesay, who by his Will of date 19th October, 1874, bequeathed £2,000 for this purpose. The Trustees and Patrons are the Principal, the Professor of Mathematics, the Professor of Natural Philosophy, and the Provost of Rothesay, all for the time being. Candidates must be natives of the island of Bute, and must be entering on their first or second session in the Faculty of Arts at the University. The Bursaries are two in number, tenable for four years ; but the Patrons may in each case continue the Bursary for a fifth year to assist a student who may have been assiduous in his Academical studies, in private study, or in Continental travel, or other pursuits conducive to relaxation, combined with enlargement of his experience of men and things. The examination is in the same subjects and at the same time as the examination for the other competition Bursaries. There is a preference, *cæteris paribus*, to the name of Duncan, in such degree as the Patrons shall determine; in other cases of equality the Bursary may be divided. Present annual value, £38 to each Bursar. On 28th October, 1897, the Patrons made a by-law declaring that it should not be competent for any one appointed after that date to a Duncan's Bute Bursary to hold any other Bursary or Scholarship concurrently with it. (One vacancy).

Bursar.—[1] William C. Cameron, 1905.

---

[1] Vacant through lapse of time.

[2] Bursar resigned.

Dundonald Bursaries (*Eight in Arts and Six in Theology*).—In 1672, William, Earl of Dundonald, founded seven Bursaries—four in Philosophy and three in Divinity.

In 1858 the surplus funds of this foundation having greatly accumulated, an Act of Parliament was obtained, authorizing an increase in the number of Bursars, but providing that the total number of Bursars in Philosophy shall, at all times, bear to the number of Bursars in Divinity the proportion of four to three, as nearly as may be. The Bursaries are now fourteen in number—eight in Philosophy and six in Divinity.

The Bursaries were further regulated by Ordinance No. 94 of the Universities Commission (1889). The Bursaries in Arts are tenable for four years, but if a bursar graduate at the end of three years, he shall only retain his Bursary for the fourth year of tenure, if he engage in a course of study approved by the Senate in subjects included in the curriculum for Degrees in Arts or in Pure Science. The Bursaries in Divinity are tenable for three years, and no longer. A student cannot be appointed to a Dundonald Bursary in Divinity unless he has passed all the examinations required for graduation in Arts. In other respects the provisions of University Court Ordinance No. XXVII. apply to all the Bursaries on this Foundation. The Bursars in Arts receive £40 each per annum, and those in Divinity £41 2s. 6d. The patronage lies with the Trustees of the late Duke of Hamilton, and is exercised by their Commissioner, George Dalziel, Esq., 66 Queen Street, Edinburgh, to whom applications should be sent on or before the fifteenth day of August. One appointment in Arts and one in Divinity will be made for next session.

Bursars in Philosophy—[1] John Brown, 1905 ; Archibald T. Cockburn, 1906; Charles R. M'Intosh, 1907 ; Robertson M. Millar, 1908.

Bursars in Divinity—[1] Andrew Templeton, M.A., 1906 ; Alexander MacLean, M.A., 1907 ; James R. Brown, M.A., 1908.

James Ewing Entrance Bursaries (*Arts*).—Four in number, founded in 1879 by the Merchants' House of Glasgow in accordance with the Deed of Endowment of the late Mr. James Ewing of Strathleven. The Directors resolved to apply annually £80 of the income of his legacy of £10,000 for educating, training, and settling in business the sons of Glasgow merchants in entrance Bursaries of £20 each. The Bursaries are tenable for four years by students giving regular attendance on classes in the Faculty of Arts. Open to first year's students. The appointments to the Bursaries will be made in accordance with the annual Bursary competition at the commencement of the session ; candidates to be qualified as above. Applications to be lodged with Wm. H. Hill, LL.D., Clerk of the Merchants' House, on or before 15th August, in each year. (One vacancy.)

Bursars—[1] Alexander J. B. Milne, 1906 ; John E. Campbell, 1907 ; William H. Gordon, 1908.

---

[1] Vacant through lapse of time.

JAMES FERGUSON BURSARIES (*Theology, Law, Medicine, or Department of Engineering Science*). Two in number, founded in 1877, under provision of the Trust Disposition and Settlement of the late James Ferguson, Esq., of Wiston, and consisting of the annual proceeds of a sum of £3,600. The Bursaries are now each of the annual value of £100, and are tenable in the University of Glasgow for two years in any of the three Faculties of Divinity, Law, or Medicine, or in the Department of Engineering Science. The Bursaries are awarded for special proficiency in Arts studies, according to the following rotation, viz.: In November, 1878, and thereafter triennially, in Mental Philosophy, together with English Literature; in November, 1879, and thereafter triennially, in Mathematics and Natural Philosophy; in November, 1880, and thereafter triennially, in Classical Literature. The Examination is the same as that for honours in the Groups of Classics, Mental Philosophy, and Mathematics and Natural Philosophy respectively (with the addition in the case of the Group of Mental Philosophy of a paper on English Literature), at the annual Examination for Degrees in October. Candidates must have completed the course of attendance required for admission to examination in the corresponding Group for the Degree of M.A. with Honours. Each Bursar must pursue the course of study for such Degree in Divinity, Law, Medicine, or Engineering Science, as he may, with approval of the Senate, select. In the event of a successful candidate not having completed attendance on the Arts classes necessary to qualify for the Degree of M.A., he shall be at liberty, without forfeiting his right to the Bursary, to continue his studies in Arts for two years, in order that he may complete his qualifications for graduation; but no part of the Bursary shall become payable until he has selected and entered upon a course of study in one of the three Faculties above mentioned, viz.:—Divinity, Law, or Medicine, or in the Department of Engineering Science. While the Bursary is tenable for two years of such course, the Bursar must continue his attendance on classes beyond the two years, if this be necessary for graduation or for receiving the Certificate of Proficiency in Engineering Science. The Bursar shall not receive payment of any half-yearly Burse without such evidence as the Senate may require that he is faithfully pursuing the selected course, and shall not receive payment of the fourth half-yearly Burse until he has graduated or received the Certificate of Proficiency in Engineering. Unless a candidate comes up to at least the standard of Second Class Honours, the Senate shall not be bound to award the Bursary. There is a preference, *cæteris paribus*, to young men natives of the parishes of Lesmahagow or Muirkirk, or the province of Picton, Nova Scotia, and also to young men of the name of Ferguson or Weir, or to descendants and relatives of the founder.

Candidates for the Bursary to be competed for in 1909 will be examined in Mathematics and Natural Philosophy along with the examinations on these subjects for the Degree of M.A. with Honours. Names to be given in to the Assistant Clerk (Matriculation Office) not later than 3rd September.

Bursar—[1] Frederick A. Steuart (Classics), 1907 ; James Cunnison (Mental Philosophy), 1908.

JOHN FERGUSON BURSARY (*Theology*).—The late Mr. John Ferguson, portioner, Gourock, by his Trust Disposition and Settlement, directed his Trustees to make over the residue of his estate to the University for the purpose of founding a Bursary in connection with the Faculty of Theology to be held by students studying for the Church of Scotland, such Bursary to be known as the John Ferguson Bursary. In January, 1909, the residue (amounting to £2079 4s. 11d.) was made over, subject to an annuity of £13. The following are the regulations:—

1. The Bursary is open to candidates who hold a degree in Arts in any University in the United Kingdom, and who, being members of the Church of Scotland, are entering on the first session of their Theological study in the University with a view to the Ministry of that Church.

2. The Faculty of Theology shall present to the Senate a reasoned report on the qualifications of candidates, showing in the case of each the distinctions he has gained in his undergraduate course, and the class of Honours with which he has taken his Degree. A preference shall be given to a Graduate with Honours in (1) Ancient Languages or (2) Philosophy.

3. The Senate shall then determine whether, and to whom, the Bursary shall be awarded.

4. The Bursary shall be tenable for three years, and the Bursar shall, during his tenure of it, prosecute the regular course of study for the Degree of B.D., and shall attend a course in at least one Semitic language other than Hebrew.

5. The second moiety of the third year's Burse shall not be paid to the Bursar until he shall have passed all the examinations required for the Degree of B.D.

6. In the case of a vacancy occurring otherwise than by lapse of time the Senate, after receiving a special report from the Faculty of Theology, may make an appointment for the remainder of the term.

Applications, giving the distinctions gained by the candidates, to be sent to the Clerk of the Senate on or before 27th September, 1909.

---

[1] Vacant through lapse of time.

Forfar Bursaries (*Arts*).—Founded by the Countess of Forfar in 1737. The foundation was remodelled by the Universities Commission (1858), by Ordinance of 31st May, 1862, and further regulated by Ordinance No. 79 of the Universities Commission (1889) of date 15th February, 1895. There are now five Forfar Bursaries in the gift of the Senate: the holder of each to receive £38, if the funds allow. These Bursaries are open for competition to all students entering the first or second session of attendance at the University. They are tenable for four years, subject to the condition that the bursar shall proceed through the curriculum in Arts, and shall pass the examinations for the Degree of M.A. If a bursar graduate at the end of three years, he shall only retain his Bursary during the fourth year of tenure if he shall engage in a course of study approved by the Senate in subjects included in the curriculum for Degrees in Arts or in Pure Science. In other respects the provisions of University Court Ordinance No. XXVII. apply to the Forfar Bursaries. The Senate, acting under Section XII. of the said Ordinance, resolved to award four of these bursaries in respect of exceptional distinction in Classics, viz., one each year to a student of the first year who, having passed the Arts Preliminary, has gained the highest marks in Latin and Greek in the Bursary examination and has not obtained a bursary for general excellence.

Bursars.—[1] Bryce K. N. Wyllie (Classics), 1905; George A. Johnston, 1906; James B. Hutton (Classics), 1906; William B. Cunningham (Classics), 1907; Eleanor J. M. Donaldson (Classics), 1908.

Forrest Bursaries (*Any Faculty*).—Founded by Mr. William Forrest of Easter Meadowhead, Drumgelloch, and Meadowside, by Deed of Mortification of date 6th March, 1858. The Trust was reconstituted in 1886, under a Scheme of the Educational Endowments Commission. The Bursaries are five in number, each of the annual value of £22, and tenable at the University of Glasgow for such number of years, not exceeding five, as the Governors may determine. The Bursaries are awarded by competitive examination among young men who require aid in obtaining a University education, and who have been pupils in public or State-aided schools within the parishes of New Monkland, Slamannan, and Shotts, or who are natives of said parishes. Bursars cannot hold another Bursary, must prosecute a course for some degree, and attend at least two classes each session.

Governors.—The Provost of Airdrie, the ministers of the parishes of New Monkland, Airdrie, and Clarkston, one representative from each of the School Boards of Airdrie and Clarkston, and one from the School Boards of Slamannan and Shotts alternately, and one

[1] Vacant through lapse of time.

appointed by the Sheriff of Lanarkshire. When a vacancy occurs, applications should be lodged with Mr. G. B. Motherwell, Town Clerk, Airdrie, on or before 21st July. (Probably one vacancy.)

Bursars—Richard H. Stewart, 1906; John Dickie, 1907; Dugald Lauder, 1907; James H. Ross, 1907; John E. Arkieson, 1908.

FORRESTER BURSARY (*Arts*).—Founded in 1901 by the Trustees of the late James Forrester, merchant in Airdrie, in accordance with the instructions contained in his Trust Disposition and Settlement. The Trustees are the patrons. The Bursary, which is of the annual value of about £20, and tenable for three years, is open to competitors of either sex, born in the parish of Dunblane or Lecropt, and requiring assistance to enter the University. It will be awarded after public examination of the candidates at the Bursary Competition in connection with the Faculty of Arts in the University of Glasgow. It shall not be held by any Bursar along with any other Bursary or Scholarship whatsoever. If two candidates are found to be equal in merit, the Trustees may divide the Bursary between them. When no candidate of sufficient merit makes application, the Bursary will lapse until the following year. Whenever the Bursary remains vacant for a year or years, the income accumulated will go to increase the Benefit of the first successful applicant, the accumulated interest being spread over the three years of tenure. When a vacancy occurs, applications should be lodged with Alexander B. Barty, LL.B., Writer, Dunblane, on or before 15th August.

Bursar—[1] Elizabeth S. Bruce, 1904.

FOUNDATION BURSARIES (*Arts*).—These Bursaries were founded by James VI., in 1577, for students in Languages and Philosophy, and were originally four in number. By ordinance of the Universities Commission (1858) of date 7th June, 1862, these Bursaries were remodelled, and were further regulated by Ordinance No. 84 of the Universities Commission (1889) of date 15th February, 1895. Under the new scheme there are two Foundation Bursaries, the holder of each to receive £20 per annum. They are open for competition to all students entering the first session of attendance at the University, and are tenable for four years. The class attendance of the Foundation bursars is regulated by University Court Ordinance No. XXVII., Sec. III. The Senate, acting under Section XII. of the said Ordinance, have resolved to award these bursaries in respect of exceptional distinction in English, viz., one bursary in alternate years to a student of the first year who, having passed the Arts Preliminary, has gained the highest marks in English in the Bursary examination and has not obtained a bursary for general excellence. If a bursar graduate at the end of three years, he shall only retain his Bursary during the fourth year of tenure if he shall engage in a course of study approved by the Senate in subjects included in the curriculum for Degrees in Arts or in Pure Science.

---

[1] Vacant through lapse of time.

Bursars.—[1] Donald C. Smith (English), 1905; John G. Smart (English), 1908.

FRANCO SCOTTISH SOCIETY'S TRAVELLING BURSARIES (*Arts*).—The Scottish Branch of the Society offers for session 1909-10 three Travelling Bursaries of £30 each for competition among students of Scottish parentage. The examination will be held simultaneously in the four Scottish Universities in the spring of 1910. Candidates must send their applications, names, addresses, and evidence of matriculation, during the session 1909-10 (accompanied by a stamped and addressed envelope), to J. W. D. Kirkland, Esq., S.S.C., Hon. Secretary, 20 George Street, Edinburgh, at a time to be announced on the University Notice Boards, and state at which of the four Universities they desire to be examined. Candidates must be matriculated students of a Scottish University during session 1909-10. The successful competitors are required to submit a scheme of study in France for the approval of the Society.

No other Scholarship, Bursary, or Grant exceeding Thirty pounds, can be held along with these Bursaries.

Bursars.—Sophia J. Younie (Edinburgh University), 1909; Elizabeth S. Barr (Glasgow University), 1909; Ruth E. Clark (Edinburgh University) and Agnes Morton (Glasgow University), equal, 1909.

FULLARTON OF OVERTON BURSARIES (*Arts*).—By Deed of Mortification and Constitution dated 22nd December, 1877, the Executors of the late John Fullarton, Esq., of Overton, West Kilbride, Ayrshire, in pursuance of his Trust Disposition and Settlement and Codicils, assigned to the Principal and Professors of Glasgow University, as Patrons, the residue of his estate, amounting to £2,604 17s. 7d., for the purpose of founding five Bursaries, more or less, each of the annual value of at least £10, but not exceeding £30. The present annual value to each bursar is £22. The Bursaries are tenable for two years by students in Arts under 25 years of age, belonging to or resident in the district of Cunninghame, in Ayrshire, children of parents whose means and social position are not above those of tradesmen, small farmers, or shopkeepers, or others who may be struggling to secure their better education, and are by themselves, or with such assistance as they may be able to get from their parents or relations, unable to provide for the expenses of a University education. The Bursaries are awarded by competitive examination in Latin, Elementary Mathematics, and English; but no candidate is eligible who has attended any University for more than one session. A Bursary may be divided between two candidates of equal or nearly equal merit, but as between a candidate who has not previously attended any University and a candidate who has so attended, the former is preferred. A Bursar may attend each session one or more of the classes in the Faculty of Arts, the selection of classes being left to his own option. Any accumulations through vacancies are added to the capital sum. Candidates are required to produce evidence of age.

---

[1] Vacant through lapse of time.

Bursars—[1] James S. Weir, 1907 ; [1] Robert A. Walker (one year), 1908 ; Alexander Banks, 1908 ; Thomas B. Waddell, 1908 ; William Peebles, 1908.

WILLIAM GARDINER BURSARIES (*Arts*, *Medicine*). — William Gardiner, M.D., of Ashton-under-Lyne, by his Settlement, dated 27th September, 1897, directed his Trustees to pay over to the University Court the sum of £1000, free of legacy duty, for the purpose of founding one or more Scholarships, Bursarships, or Exhibitions, to be devoted to such objects and in such manner as the Court should think fit, preference being given to students of Chemistry, Physiology, and Physics, French and German, and, so far as practicable, to sons of medical men, lawyers, and teachers.

The following regulations were approved by the University Court on 4th October, 1900 :—

1. The Bursaries shall be two in number, equal in value, and each tenable for two years.
2. One Bursary shall belong to the Faculty of Medicine, and shall be awarded after the Autumn Professional Examinations in Medicine to the candidate who in the year in which the bursary is open has passed in Physiology of the second professional examination, and whose aggregate of marks in that subject and in Chemistry and Physics of the first professional examination, is the highest.
3. The other Bursary shall belong to the Faculty of Arts, and shall be awarded to the student who obtains the highest marks in French and German as subjects of the General Bursary examination in the year in which the Bursary is open, provided that it shall be in the power of the Senate to award the bursary for decided proficiency shown by a candidate in one of the said languages. The holder of this bursary must attend the French class or the German class in the University, and pass the examination in one or other of these subjects required for graduation in Arts. The second moiety of the second year's Burse shall not be paid until the Bursar shall have passed this examination.
4. Either of the William Gardiner Bursaries may be held along with any other Bursary in the University, if the regulations of that other Bursary permit.

---

[1] Vacant through lapse of time.

5. The Bursaries shall be open to both men and women, effect being given, *cæteris paribus*, to the preference expressed in the Will of Dr. Gardiner for sons of medical men, lawyers, and teachers.

The present annual value of each is £14.

Bursars—[1] James Gibson (Arts), 1907; [1] James L. Ure (Med.), 1907.

GARTMORE BURSARY (*Arts*).—In accordance with the directions of the Founder of the Gartmore Medal (see p. 153), the Universities Commission (1889), by Ordinance No. 98, founded this Bursary, a sufficient capital having accumulated from the surpluses of the Foundation. It is open by competition to all students entering on their first year of attendance on a course for graduation in Arts, and is tenable for three years. Value, £22 per annum. In other respects the provisions of University Court Ordinance No. XXVII. apply to the Gartmore Bursary.

Bursar—Robert Clark, 1906.

GENERAL COUNCIL BURSARIES (*Arts*).—Under a scheme originated by the late Mr. David Hannay, Clerk to the General Council, a sum of about £500 (Fund No. I.) was raised by subscription among the members of Council for the foundation of Bursaries to be held for three years, and open to competition to first and second year's students in Arts. This fund has now been exhausted. In addition, a sum of £2,382 2s. (Fund No. II.) was raised to form the nucleus of a permanent General Council Bursaries Fund, and invested in the names of Trustees. Of this sum £1,000 is due to the liberality of the late Rev. Wm. Park, D.D., minister of Airth, to be applied in memory of his brother, the Rev. John Park, D.D., minister of Cadder. With Dr. Park's consent, the income of this sum was appropriated to two General Council Park Bursaries of £20 a-year, open to students of either sex who, having passed the Preliminary Examination in Arts, are about to commence their second year of actual attendance at the University. The General Council Park Bursaries are tenable for two years. The remainder of the free income of the fund is devoted to providing bursaries, called the General Council Bursaries, of such number and of such amount as may from time to time be determined by the Trustees. The General Council Bursaries are open to students of either sex on their first entering the University, and are tenable for three years. No candidate shall obtain a General Council Bursary who shall not have passed the Preliminary Examination in Arts, but it is in the power of the Trustees to admit to a General Council Bursary, a candidate who has passed in at least three subjects of the Preliminary Examination on condition that the bursary shall not be retained unless the bursar passes in all the subjects not later than the second Preliminary Examination held after the time of admission. In 1903 and triennially thereafter (1909) one General Council Bursary shall be awarded in respect of special distinction in Dynamics to the student of the first year who, having passed the Arts Preliminary, has gained the highest marks in Dynamics in the Bursary examination, and has not obtained a bursary for general excellence.

---

[1] Vacant through lapse of time.

Bursars—[1] William S. Kerr (Dynamics), 1906; Arthur S. Morrison, 1907; [1] Thomas H. Black, 1907 (Park); Mary S. Sinclair, 1908 (Park).

JOHN GIBSON BURSARIES (*Any Faculty*).—Founded in 1877 by Miss Jane Gibson, in memory of her father, John Gibson of Oakbank and Johnstone, merchant in Glasgow. The Bursaries, which may be given to one student, or at most two, consist of the annual proceeds of £1,000. The administration is vested in trustees, who have great discretionary powers as to the conditions on which the Bursaries may be held. Their subsisting resolution is to award the Bursary to a Medical student entering on the third year of his course, and that it be retainable for three years. When a vacancy occurs applications and relative testimonials are to be lodged not later than 1st October with Messrs. A. J. & A. Graham, 198 West George Street, Glasgow, who will furnish forms of application.

Bursars—[1] Robert B. F. M'Kail, 1906; William Taylor, 1907.

DR. THOMAS GIBSON (ROTHESAY) BURSARY (*Medicine*).—Founded in 1893 in terms of the Trust Disposition and Settlement of Misses Christian and Janet Gibson, who bequeathed £1,000, free of legacy duty for that purpose, in memory of their brother. Present annual value, £36. The Bursary is tenable for four years, and is open to any matriculated student of Medicine (male or female) in the University preparing for service as a Medical missionary in connection with the Church of Scotland, who has completed the first professional examination in the year in which the Bursary is open. The Bursary is awarded to the qualified applicant who has obtained the best marks in the said examination; but in the case of an equality of marks between two or more candidates, the Senate may hold a further examination to determine to which of such candidates the Bursary shall be awarded. In the case of a casual vacancy, the Senate may appoint for the remainder of the period of tenure any qualified applicant who has shown diligence and proficiency in the earlier part of the curriculum in Medicine. In the event of the Bursary not being awarded in any year or years from lack of qualified candidates, the Senate may, in any subsequent year, if the funds of the Foundation admit, award an additional Bursary for one or more years, not exceeding four. There is a preference, *cæteris paribus*, to students of the name of Gibson.

Bursar—Alexander G. Henderson, 1908.

---

[1] Vacant through lapse of time.

GILCHRIST BURSARY.—See Howison and Gilchrist, p. 375.

GILHAGIE AND STRUTHERS BURSARY (*Theology*).—The Gilhagie Bursary was founded in 1753 by Agnes Gilhagie, widow of William Somerville, merchant in Glasgow, for a student in Divinity. It was tenable for four years, the annual value being £6 6s. In 1624 the Rev. William Struthers founded two Bursaries, each of the annual value of £6 13s. 4d., for students of Divinity. By Ordinance of the Universities Commission (1858) the two Struthers Bursaries were conjoined into one, tenable for three years, the holder to be M.A., and a student of Divinity. All other restrictions were abolished. By Ordinance No. 82 the Universities Commission (1889) combined the Gilhagie Bursary and the Struthers Bursary into one, called the Gilhagie and Struthers Bursary. The patrons of the joint-bursary are the Magistrates, Town Council, and Ministers of Glasgow, who may present any person without preference as to name, provided that he be a Master of Arts of a Scottish University. The Bursary is tenable for three years, and no longer, subject to the condition that the bursar shall during that period give regular attendance as a student of Theology in the University of Glasgow. When a vacancy occurs, applications are to be lodged with the Town Clerk, City Chambers, not later than 15th August.

Bursar—[1] James R. Lee, M.A., 1906.

GLASGOW CITY EDUCATIONAL ENDOWMENTS BURSARIES (*Arts, etc.*).—Under scheme 10, section 31, of the Educational Endowments (Scotland) Commission, approved by Her Majesty in Council, on 19th May, 1885, the Governors of the Glasgow City Endowments Board are instructed to apply the annual sum of £500 in establishing Bursaries at the University of Glasgow. Each Bursary is of the yearly value of £25. One half of these Bursaries were to be awarded among the King's Scholars at Training Colleges who had attended two years at the University of Glasgow, on the report of the Board of Examiners appointed by the Scotch Education Department. Every King's Scholar obtaining such Bursary were taken bound to complete his curriculum for a degree in Arts or Science during the time he holds the Bursary, and thereafter to submit himself for examination for such degree. The other half of the Bursaries are awarded by competitive examination among those who have attended public or State-aided schools in Glasgow, and who require id in obtaining a University education. They are tenable for four years. Forms of application may be had from the Secretary of he Board—Mr. W. H. Macdonald, Hutchesons' Buildings, Ingram Street—and should be lodged with him on or before the 15th day f August in each year. The names of candidates who are found o possess the prescribed qualifications will be sent by him to the Clerk f Senate that they may be entered at the University competition for Bursaries for the first year. The Bursaries will be awarded to those candidates highest in order of merit who fail to win a Bursary at the general competition. In 1908 five King's Scholars and two other Bursars will be appointed.

---

[1] Vacant through lapse of time.

Bursars—[1] John S. Anderson, 1905; [1] Thomas S. Campbell, 1905; [1] Catherine Craig, 1905; James A. M'Cardel, 1906; Jeanie B. Trench, 1906; Alexander Gray, 1907; George M. Logan, 1907; Mary Marwick, 1907; George W. Blair, 1908; John Hamilton, 1908.

King's Scholars—[1] Robert W. Craig, 1906; [1] Jane Hamilton, 1906; [1] William Paterson, 1906; [1] John Robb, 1906; [1] James C. Wilson, 1906; John Falconer, 1907; David L. Grant, 1907; Donald C. Smith, 1907; Muir Burns, 1908; Alexander Dingwall, 1908; John A. Hodge, 1908; Philip S. Mackie, 1908.

GEORGE GRANT BURSARY (*Arts*).—Founded in 1885 by Miss Susan Smith Grant of West Thorn, Lauder Road, Edinburgh, in memory of her father, George Grant, Esq., cotton spinner, Mile-End, Glasgow. Miss Grant assigned and conveyed to the Senate the sum of £1,200 in trust, to be applied in all time coming for providing one Bursary in connection with the Faculty of Arts. Miss Grant retains the right of nomination to the Bursary during her lifetime, but has provided that in the event of her failing or declining to nominate, and in all cases after her death, the Bursar shall be determined by competitive examination of first year students who are entering on a three or four years' course of study, and the Bursary shall be tenable for three or four years accordingly. On the Bursary falling vacant otherwise than by lapse of time, an appointment may be made for the remainder of the term, or for the full period after competition. The Bursar is required to graduate in Arts, and before payment of the second moiety of the last year's Bursary he must produce evidence that he has taken his degree, or that he has passed all the examinations necessary for graduation. Any accumulations from vacancies or otherwise are to be added to the capital sum. The present annual value is £40.

Bursar—[2] Henry J. C. Gibson, 1906.

GEORGE GRANT, JUNIOR, BURSARY (*Arts*).—Founded in 1885 by Mrs. Agnes Grant or Mair, wife of the Rev. John Mair, D.D., minister of the parish of South Dean, Roxburghshire, in memory of her brother, the late George Grant, junior, cotton manufacturer, Mile-End, Glasgow. Mrs. Mair, with the advice and consent of her husband as her curator and administrator-in-law, and for his interest in the premises, assigned and disponed to the Senate the sum of

---

[1] Vacant through lapse of time.

[2] Vacant through resignation of Bursar, who has graduated.

£1,200 in trust, to be applied by them in all time coming for providing one Bursary in connection with the Faculty of Arts. Mrs. Mair reserved to herself during her lifetime, and thereafter to her husband, should he survive her, the right to nominate to the Bursary, and to fix the classes to be attended by the Bursar and the period of his tenure. Mrs. Mair died on 27th November, 1900, and Dr. Mair on 27th January, 1902. The Bursary is tenable for four years, and the Bursar is selected by competitive examination of first year's students. In the event of a vacancy occurring otherwise than by lapse of time an appointment may be made for the remainder of the term, or for the full period after competition. The Bursar is required to graduate in Arts, and before payment of the second moiety of the last year's Bursary must produce evidence that he has taken the degree, or that he has passed all the examinations necessary for graduation. Any accumulations through vacancies or otherwise are to be added to the capital sum. The present annual value is £40.

Bursar—Robert Lindsay, 1907.

HAMILTON BURSARIES (*Three in Arts, and Three in Theology*).—These Bursaries, now six in number, were founded by Anne, Duchess of Hamilton, in 1691. They were regulated by Act of Parliament, 1758, and further regulated by Ordinance No. 96 of the Universities Commission (1889). There are three Hamilton Bursaries in the Faculty of Arts, and three in the Faculty of Divinity, and each of them is tenable for three years, and no longer. The bursars in the Faculty of Arts shall attend such classes qualifying for graduation in Arts, and in such order as may be approved by the Senate. In other respects the provisions of University Court Ordinance No. XXVII. apply to the Bursaries on this Foundation. The bursars in Arts receive £20, those in Divinity £25 per annum each, should the state of the funds permit. The patronage lies with the Trustees of the late Duke of Hamilton, and is exercised by their Commissioner, George Dalziel, Esq., 66 Queen Street, Edinburgh, to whom applications should be sent on or before the fifteenth day of August. (One vacancy in Arts, and one in Divinity.)

Bursars in Arts—[1] William M'Bride, 1906; James MacGillivray, 1907; Gilbert B. Hay, 1908.

Bursars in Theology—[1] Alexander Mauchline, M.A., 1906; Charles E. Duff, 1907; James C. Campell, 1908.

HAMILTON EDUCATIONAL TRUST BURSARIES (*Arts*).—Under scheme 39, section 28, of the Educational Endowments (Scotland) Commission, approved by Her Majesty in Council on 13th May, 1887, the Governors of Hamilton Educational Trust are instructed to apply a sum, not less than £50 yearly, in providing University or Technical College Bursaries. These Bursaries, each of the yearly value of £20, and tenable for three years, are open to be competed for by pupils attending public or State-aided schools in the burgh and parish of Hamilton, who require aid in obtaining a University or higher education. The Governors reserve power to withhold or withdraw the Bursary in whole or in part on the applicant or bursar being appointed to any other bursary. Applications to be lodged with Patrick Keith, Esq., Hamilton, Clerk of the Trust, on or before the first day of August.

---

[1] Vacant through lapse of time.

Bursars—[1] Robert Clark, 1906 ; William Anderson, 1907 ; James White, 1908.

HANNAY BURSARIES (*Arts*).—Three in number, founded in 1865 by the late Mr. Anthony Hannay, merchant, Glasgow, in memory of his deceased wife. To be awarded to young men, not under fourteen and not above nineteen years of age, who are about to commence their studies in the Arts classes, with a view to the Holy Ministry in connection with any of the Evangelical Religious Denominations in Scotland, and who shall engage to attend during each of the first three years of the curriculum not fewer than two classes. The principal qualifications of those to be selected are good moral character, promising talent, a fair preliminary education, and a want or deficiency in the necessary pecuniary means for pursuing a University education. Candidates for these Bursaries are required to submit themselves to the annual Bursary Examination at the commencement of the Winter Session of the University of Glasgow, or such other examination as the trustees may appoint ; but the result of said examination shall only be taken as one of the tests in judging of the merits of the applicants. The Bursaries to be bestowed for three years—one to be given each year. Value, about £15 per annum each. The appointment is vested in the Principal, the Dean of the Faculty of Procurators in Glasgow, and the President of the Faculty of Physicians and Surgeons in Glasgow. Applications to be made to Mr. William Brodie, 77 St. Vincent Street, and also to the Assistant Clerk (Matriculation Office) not later than 15th August.

Bursars—[1] John M'Dougall, 1906 ; Thomas M'Aughtrie, 1907 ; David M'Queen, 1908.

HART BURSARIES (*Any Faculty*).—Mrs. Janet Robinson or Hart by her Trust Disposition and Settlement, dated 29th March, 1895, directed that one third of the residue of her estate should be devoted to establishing in the College of Glasgow one or more Bursaries, each of an annual value not exceeding £30, and tenable for five years. The Patrons are the Provost of Girvan, the Junior Magistrates of Girvan, the Chairman of the School Board of the Burgh of Girvan, and their successors in office, with Mr. David Andrews, Solicitor, Girvan. The Patrons were enjoined to prefer in the first place students born in the Parish of Girvan, and failing such, those born in Ayrshire, and to adopt such means as they think necessary to satisfy themselves that the students to be presented are qualified to enter the College. For further information apply to Messrs. W. and D. Andrews, Solicitors, Girvan. (One vacancy.)

---

[1] Vacant through lapse of time.

Bursar—Robert Corke, 1908.

HASTIE BURSARIES (*One in Arts and Two in Theology*). The Rev. Mr. Hastie, by Deed of Mortification dated 5th September, 1707, founded a Bursary for a student in this University, which was first awarded in 1718. By an addition afterwards made to the foundation, the number of Bursaries was increased to three, two in Divinity and one in Philosophy.

The Universities Commission (1858), in an Ordinance of date 31st May, 1862, made regulations for these Bursaries, and further regulations were made by the Commissioners (1889) in Ordinance No. 90. There are now three Bursaries on this Foundation, each £27 in value—one in Arts and two in Theology. The Bursary n Arts is open by competition to all students entering on their first ession of attendance in the Faculty of Arts, and is tenable for four years, but if a student graduate at the end of three years, he shall nly retain his Bursary for the fourth year of tenure if he shall engage in a course of study approved by the Senate in subjects ncluded in the curriculum for Degrees in Arts or in Pure Science. The Bursaries in Divinity are open by competition to all students who are Masters of Arts, or who have passed all the examinations necessary for graduation in Arts, and who are entering on their first ession of attendance in the Faculty of Divinity. They are tenable for three years, and no longer. In other respects the provisions of University Court Ordinance No. XXVII. apply to all the Hastie Bursaries. The Senate, acting under Section XII. of the last-menioned Ordinance, have resolved to award the Hastie Bursary in Arts in respect of exceptional distinction in English, to a student of the first year who, having passed the Arts Preliminary, has gained the highest marks in English in the Bursary Examination, nd has not obtained a bursary for general excellence.

Bursar in Arts—Tom D. Miller (English), 1906.

Bursar in Theology—[1] David W. M'Lean, M.A., 1906; Thomas mith, 1907.

---

[1] Vacant through lapse of time.

Glasgow Highland Society's Bursaries (*Arts and Medicine*).—In 1892 the Managers of the Glasgow Highland Society framed a scheme of Scholarships and Bursaries for students of Highland descent. The scheme includes Scholarships tenable at Secondary or Technical Schools, and Bursaries tenable at the Glasgow and West of Scotland Technical College and at the University. The Bursaries may be held by men or women in a proportion to be determined by the Managers. The University Bursaries in Arts are seven in number, each of the annual value of £20, and tenable for three years in the Faculty of Arts, but the continuance of a Bursary in the second and third year is dependent on the character of the certificates obtained by a Bursar in his classes in the previous year. They are awarded by competition among students of the first year. The Bursaries in Medicine, each of the annual value of £25, are tenable for five years in the University, or any other College approved by the managers. Candidates must pass the preliminary examination of the College at which they desire to attend, and the managers reserve to themselves the right to appoint the most suitable. In 1909 there will probably be two Bursaries in Arts and two in Medicine open to competition. Forms of application may be obtained from the Secretary, Mr. Hugh Brown, C.A., 58 St. Vincent Street.

Bursars in Arts—[1] Henrietta H. Duff, 1905 ; [1] George Scott, 1905 ; James M. M‘Phail, 1906 ; Arthur Steven, 1906 ; Andrew L. M. Mackenzie, 1907 ; Finlay M. Urquhart, 1907 ; Donald Macleod, 1908 ; Donald Ross, 1908.

Bursars in Medicine—[1] George Macleod, 1904 ; [1] Angus Millar, 1904 ; Donald C. Macdonald, 1905 ; Farquhar Matheson, 1906 ; James Matheson, 1906 ; Alex. M. Gibson, 1907 ; Henry Stewart, 1907 ; James L. M‘Bean, 1908 ; John MacInnes, 1908.

Hill Bursaries (*Arts*).—Four Bursaries of the annual value of not less than £10, nor more than £25 (present value £15). Of these Bursaries, tenable for three years, two shall be held at the University of Glasgow, and two either at that University or at the Glasgow and West of Scotland Technical College. The Bursaries shall be awarded on the results of the Bursary Competition of the University of Glasgow or the Preliminary Examination for the Diploma of the Technical College, and shall be open to pupils attending the secondary departments of public or State-aided schools in the district of the School Board of the Parish of Govan who shall be approved by the Governors of Hill's Trust, and whose parents are in such circumstances as to require aid in giving their children higher education or technical instruction. Secretary, Mr.

---

[1] Vacant through lapse of time.

Richard D. Donaldson, 155 Bath Street, to whom in case of a vacancy application should be made before 15th August.

Bursars—Mary J. Cameron, 1907; John Hill, 1907; Alexander J. Tait, 1907.

Howison and Gilchrist Bursary (*Arts*).—In 1613 the Rev. John Howison, Minister of Cambuslang, founded a Bursary for a qualified scholar of honest name and good report, son of a craftsman of Glasgow. Failing the son of a craftsman of Glasgow, any other qualified scholar might be selected by the Patrons. Mr. John Gilchrist, tailor in Glasgow, founded in 1700 a Bursary in Philosophy for a student, being the son of a tradesman freeman in the burgh of Glasgow, with a preference to the names Gilchrist, Bryce, and Boyd.

By Ordinance No. 89 the Universities Commission (1889) combined these two Bursaries into one, called the Howison and Gilchrist Bursary. The Patrons are the Trades' House of Glasgow, and any person may be presented without restriction as to birth or preference as to name. The Bursary is tenable for four years, but if a bursar graduate at the end of three years, he shall only retain his Bursary during the fourth year of tenure if he shall engage in a course of study approved by the Senate in subjects included in the curriculum for Degrees in Arts or in Pure Science. In other respects the provisions of University Court Ordinance No. XXVII apply to this Bursary. Value £10 per annum.

Bursar—Robert P. Black, 1907.

Hutchesons' Educational Trust Bursaries.—Under Scheme 9, Section 40, of the Educational Endowments (Scotland) Commission, approved by Her Majesty in Council on 5th March, 1885, the Governors of Hutchesons' Educational Trust are instructed to apply an annual sum of not less than £100 in establishing University or Technical College Bursaries. These Bursaries, each of the yearly value of £20, and tenable for four years, are open to be competed or by boys who have attended Hutchesons' Grammar School for at east two years immediately preceding the competition, and completed the curriculum in the Secondary Department. Forms of pplication may be had from the Secretary of the Trust—Mr. W. H. Macdonald, Hutchesons' Buildings, Ingram Street—and should be odged with him on or before the fifteenth day of August in each year. The names of candidates who are found to possess the prescribed ualification will be sent by him to the Clerk of Senate that they nay be entered at the University competition for Bursaries for the rst year. The Bursaries will be awarded to those candidates ighest in the order of merit who fail to win a Bursary at the eneral competition. In 1909 five Bursars will be appointed.

Bursars—[1] Robert B. Austin, 1905; [1] Robert Drummond, 1905; [1] Nicolas Gebbie, 1905; [1] John M. Gray, 1905; [1] John Smith, 1905; Matthew W. Macaulay, 1906; Abraham Blashky, 1906; Simon H. Bloom, 1906; Farquhar Matheson, 1906; William B. Drummond, 1907; James Forrest, 1907; Hugh A. G. M'Ewan, 1907; James N. Macpherson, 1907; William Montgomery, 1907; Percival M. Buchanan, 1908; Dugald S. Campbell, 1908; Robert Gilmour, 1908; James W. Ingram, 1908; Andrew C. Philps, 1908.

THOMAS HUTCHESON BURSARY (*Theology, Law, or Medicine*).—This Bursary, formerly known as the Old Library Bursary, was founded by Mr. Thomas Hutcheson of Lambhill in 1641. Preference was given to a son of a burgess, particularly one of the name Hutcheson or Herbertson. The Patrons are the Magistrates and Town Council of Glasgow. Ordinance No. 83 of the Universities Commission (1889) prescribes that the Bursary shall be called the Thomas Hutcheson Bursary, and that it shall be lawful for the Patrons to appoint to it, without preference as to name or birth, any Master of Arts who is entering on his course of study in any one of the Faculties of Divinity, Law, or Medicine. The Bursary is tenable for four years, but if a bursar in Divinity graduate at the end of three years, he shall only retain his Bursary during the fourth year of tenure if he shall engage in a course of study in Divinity approved by the Senate. Value £11 2s. 2¾d. per annum. When a vacancy occurs, applications are to be lodged with the Town Clerk, City Chambers, not later than 15th August.

Bursar—William M'Nicol, M.A., 1908.

HYNDFORD AND ROSS BURSARY (*Arts*).—In 1617 Mr. Michael Wilson founded a Bursary, called the Hyndford Bursary, for a student in Philosophy. The right of presentation belonged to the representative of Sir James Carmichael, viz., Sir W. C. Anstruther, Bart. In 1659 Captain William Ross of Rosseyle founded the Ross Bursary for a student in Languages and Philosophy. The appointment was vested in the Earl of Glasgow. By Ordinance No. 95 of the Universities Commission (1889), these two Bursaries were combined into one, to be called the Hyndford and Ross Bursary. It is tenable for four years, but if the bursar graduate at the end of three years, he shall only retain his Bursary during the fourth year of tenure if he engage in a course of study approved by the Senate in subjects included in the curriculum for Degrees in Arts or in Pure Science. The patronage of the Bursary is vested in Sir W. C. Anstruther, Bart., and his heirs, and the Earl of Glasgow and his heirs, who exercise their right of presentation by turns. The appointment in 1905 belonged to the latter. In other respects the provisions of University Court Ordinance No. XXVII. apply to the Bursary. Value £10 16s. 8d.

---

[1] Vacant through lapse of time.

Bursar—William C. Love, 1906.

John Ferguson Jaffrey Bursary in Mental Philosophy (*Arts*).—This Bursary, founded in 1877, is of the annual value of £32, and shall be awarded to a student on entering the third session of his attendance, *i.e.* a student who has attended at any of the Scottish Universities during each of the two previous sessions at least two classes in the Faculty of Arts other than the classes of Logic, Moral Philosophy, and English Literature, or who having passed the Preliminary Examination in Humanity and Greek, has attended for one session the higher classes in those subjects, and who proposes to attend in the following sessions the classes of Logic, Moral Philosophy, and English Literature. Candidates are examined in such subjects in English Literature and Logic as may be fixed by the Senate. The examiners are the Professors of English Literature, Logic, and Moral Philosophy. The Bursary shall, as a rule, be tenable for two years, but on condition that the Bursar, during the two years of his tenure, shall complete his attendance on the classes of Logic, Moral Philosophy, and English Literature, and shall also attend one at least of the advanced classes taught by the Professors of Logic and Moral Philosophy, and shall pass the examinations in Logic, Moral Philosophy, and English Literature for graduation in Arts. The subjects of examination are—1. *Logic*: (*a*) Descartes, *Meditations*, (Veitch's translation); (*b*) Ferrier, *Lectures on Greek Philosophy*, the pre-Socratic period; 2. *English Literature*: (*a*) Shakespeare, *Coriolanus*, *The Tempest*; (*b*) Pope, *Essay on Criticism*, *Essay on Man*; (*c*) Burke, *Speech on Conciliation with America*. Candidates are not expected to deal with questions of textual criticism in the case of the works in English Literature. There will be a competition in October, 1909.

Bursar—[1] Gladstone L. R. Small, 1907.

Malcolm Kerr Bursaries (*Science, etc.*).—Two in number, founded in 1874, and consisting each of half the free annual proceeds of a sum of £1,000, bequeathed by the late Mr. Malcolm Kerr, stationer in Glasgow. One of the Bursaries is in Natural Philosophy, the other in Chemistry. The Bursaries are given on examination, and are tenable for three years, provided the Bursars continue for so long to prosecute in the University Laboratories, to the satisfaction of the Senate, the study of Natural Philosophy and Chemistry respectively. The subjects of examination in Natural Philosophy are the same as those for that subject in the examination for the ordinary degree of M.A., and in Chemistry, the same as those for the Final Science Examination for B.Sc. Present value, £25 to each Bursar.

---

[1] Vacant through lapse of time.

Bursars—William S. Kerr (Nat. Phil.), 1908; Harvey H. Montgomerie (Chem.), 1908.

The Kintyre (Ker) Bursary (*Any Faculty*).—This Bursary founded in 1862 by Robert Ker, Esq., of Auchinraith, merchant in Glasgow, originated in the Founder's desire "to increase the opportunities of acquiring knowledge to the natives of Kintyre."

The Office-bearers of the Kintyre Club were appointed Patrons. By the Deed of Mortification, the free proceeds of a sum of £500 sterling—about £20 sterling—were appointed to be paid to a student to be nominated by them, and who should enjoy the said Bursary for the term of three years while prosecuting his studies at the Glasgow University, with power to the Patrons to determine, in every case, whether the Bursary should be granted for a longer or shorter period than three years, but in no instance is it to be granted for a longer period than four years to the same student. No restriction is placed upon the student as to his profession or calling. Applicants must be connected with Kintyre, and be entering the University for the first time. When a vacancy occurs application should be lodged with the Honorary Secretary of the Kintyre Club, R. Harvey Pirie, LL.B., 173 St. Vincent Street, Glasgow, on or before 10th June.

Bursar—Matthew Bowie, 1907.

The Kintyre (Alexander Love) Bursary (*Any Faculty*).—This Bursary was founded in 1890 by the family of the late Alexander Love of Campbeltown. It consists of the free proceeds of a sum of £300 sterling—about £11—and is administered by the Office-bearers of the Kintyre Club. The Bursar must be a native or the son of a native of Kintyre, or actually resident there, and entering upon his first session at the University. His circumstances must be such as to render aid important. The period of tenure is not to exceed four years. When a vacancy occurs application should be made to the Hon. Sec. of the Kintyre Club, R. Harvey Pirie, LL.B., 173 St. Vincent Street, Glasgow, on or before 31st May.

Bursar—Louise M. Stewart, 1907.

Laing Bursary or Bursaries (*Arts*).—The late Alexander Laing, LL.D., some time Professor of Mathematics in Anderson's College, Glasgow, who died in 1882, bequeathed to trustees the sum of £500 to found one or two Bursaries in the Faculty of Arts. The trustees by a deed dated 26th July, 1883, conveyed to the Senate the sum of £500 of the preference 4 per cent. stock of the Glasgow and South-Western Railway Company, under certain conditions and regulations.

The foundation is for providing, in the option of the Senate, one Bursary of £20, or two of £10 each. The Bursary is open to competition to all students entering on their first session in the Faculty of Arts (a preference being given, *cæteris paribus*, to natives of Brechin). The period of tenure is three years. Should the Bursary become vacant otherwise than by lapse of time, the income of the fund during the vacancy is to be added to capital.

Bursar—Robert P. Arnot, 1908.

James Laing Bursaries (*Arts*).—Founded in 1892, under the Trust Disposition and Settlement of Mr. James Laing, Writer, Denny. So far as the funds admit, the Trustee appoints annually to two Bursaries, each of the annual value of £25, and tenable for four years. They are open to candidates of either sex who have been educated for at least three years in any school or schools in the County (including the Burgh) of Stirling, and who are entering upon their first or second year of study in the University of Glasgow. Applications with certificates of qualification and good conduct from the teacher or teachers under whom candidates have been educated, should be lodged with Mr. William Jenkins, Writer, Denny, not later than 15th August. The names of candidates who are found qualified will be sent by him to the Clerk of Senate that they may be entered at the University competition for Bursaries. Failing candidates qualified as above, the Bursaries are open to competition to students of the first or second year from any part of Scotland. (Two vacancies.)

Bursars—[1] John R. Peddie, 1905; [1] Euphemia D. Gordon, 1905; Thomas H. Calder, 1906; Andrew M'Allan, 1906; John G. H. King, 1907; Catherine S. Napier, 1907; George Gilfillan, 1908; Beatrice H. M'Ainsh, 1908.

Lamb Bursary (*Arts or Theology*).—Founded in 1863 by the late Rev. Dr. William Lamb, minister of Carmichael, and appropriated to a student in Arts or Divinity. Bursar appointed by the Minister and Kirk Session of Carmichael. The preference to applicants in the parish of Carmichael or Pettinain, and the restriction to applicants from the Presbytery of Lanark, were cancelled by Ordinance No. 57 of the Universities Commission (1889). Value, about £12 per annum.

Bursar—Isabella Clarkson, 1908.

Lanfine Bursaries (*Arts*).—By the will of the late Miss Martha Brown of Lanfine a sum of £5000 was bequeathed in 1902 to this University, "to be applied in payment of Bursaries tenable for not more than four years, of not less than £25 and not exceeding £40 each per annum, to be held by students who have passed a competitive examination in classes connected with the Faculty of Arts under such conditions as the Principal and Senatus of Glasgow may from time to time prescribe, the said Bursaries to be called the Lanfine Bursaries."

---

[1] Vacant through lapse of time.

The following regulations were adopted by the Senate on 19th February, 1903 :—

1. There shall be six bursaries, each of the annual value of £27, and each tenable for two years.

2. They shall be held by students of either sex who, having passed the full Preliminary Examination in Arts, are pursuing a course for graduation with Honours.

3. Three bursaries shall be awarded annually in the following alternating order :—In April, 1904, and thereafter biennially (1910), one bursary in each of the following Groups of Honours, viz. Mental Philosophy, Modern Languages, English ; in April, 1905, and thereafter biennially (1911), one bursary in each of the following Groups of Honours, viz. Economic Science, History, Semitic Languages.

4. (*a*) Candidates for the bursary in Mental Philosophy must be attending the ordinary class in Logic or in Moral Philosophy, and the bursary shall be awarded to the candidate who, in the year of competition, is highest in the honour list of the Ordinary Logic Class at the first vacancy (1904), of the Ordinary Moral Philosophy Class at the second vacancy (1906), and so on alternately.

(*b*) Candidates for the bursary in Modern Languages must be attending the ordinary class in French or in German, and the Bursary shall be awarded to the candidate who, in the year of competition, is highest in the honour list of the Ordinary French Class at the first vacancy (1904), of the Ordinary German Class at the second vacancy (1906), and so on alternately.

(*c*) Candidates for the Bursary in Semitic Languages must be attending the ordinary class in Hebrew or in Arabic, and the Bursary shall be awarded to the candidate who, in the year of competition, is highest in the honour list of the ordinary Hebrew Class at the first vacancy (1909), of the ordinary Arabic Class at the second vacancy (1911), and so on alternately ; provided always that if no candidate shall present himself in Hebrew the Bursary may be held by a student attending the ordinary Arabic Class, and *vice versâ*.

(*d*) Candidates for the bursaries in English, Economic Science, History, and Semitic Languages, must be attending the ordinary classes in English, Political Economy, and History, respectively, and the bursary in each case shall be awarded to the candidate who, in the year of competition, is highest in the honour list of the class which, as a candidate, he is required to attend.

5. The first moiety of each bursary shall not be paid to the bursar until he produces a certificate bearing that he is attending an Honours Class in the Group in connection with which he has been appointed to the bursary; and the last moiety of each bursary shall not be paid to the bursar until he has obtained the Degree of Master of Arts with Honours in the Group in connection with which he holds his bursary.

6. If in any year bursaries allocated to any of the above Groups are not awarded, such bursaries shall, in the succeeding year, be open to competition in the Groups of (*a*) Classics and (*b*) Mathematics and Natural Philosophy, and the award shall be made on the same principles as in the case of the bursaries in Mental Philosophy and Modern Languages.

7. A Lanfine Bursary shall not be held along with another bursary.

Bursars—Gladstone L. R. Small (Ment. Phil.), 1908; Mary R. Mather (Mod. Lang.), 1908; Alexander S. Fulton (Sem. Lang.), 1909.

Leadbetter Bursary (*Arts*).—This Bursary was founded in 1855 by Mr. John Leadbetter, merchant, Glasgow. It was made tenable for four years, and the classes to be attended by the Bursar in each of the four years were prescribed. A preference was given to boys who had attended the five years' Classical Course of the High School of Glasgow. Patrons—The Lord Provost and Magistrates. Ordinance No. 88 of the Universities Commission (1889) empowers the Patrons to present to the Bursary any person who has completed the five years' Classical course of the High School of Glasgow, whom failing, any person, without restriction as to parentage, who has received a similar classical education elsewhere. The Bursar must attend the Latin and Greek classes in the University during at least one year, and thereafter continue a course of study in the University necessary for the Degree of Master of Arts. The Bursary is tenable for four years, but if the holder graduate at the end of three years he shall only retain his Bursary during the fourth year of tenure if he shall engage in a course of study approved by the Senate in subjects included in the curriculum for Degrees in Arts or in Pure Science. In other respects the provisions of University Court Ordinance No. XXVII. apply to this Bursary. When a vacancy occurs, applications are to be lodged with the Town Clerk, City Chambers, not later than 15th August.

Bursar—David C. Watson, 1906.

Archbishop Leighton Bursary (*Arts and Theology alternately*).—Robert Leighton, Archbishop of Glasgow, founded in 1681 two

Bursaries, which were tenable for four years in Philosophy, and two or three years in Divinity. By Ordinance No. 86 of the Universities Commissioners (1889), the two Bursaries were combined into one of the annual value of £18, to be called the Archbishop Leighton Bursary. An appointment is made of a Bursar in the Faculty of Arts, and at the end of his period of tenure an appointment in the Faculty of Divinity, and so on alternately, the period of tenure in each case being three years, and a person who has held the Bursary in Arts being eligible for appointment also in Divinity. The appointment in 1910 will be for three years in Divinity. The provisions of University Court Ordinance No. XXVII. apply to this Bursary. When a vacancy occurs, two students are nominated by the Town Council, and examined by the Senate, who prefer the best scholar. When a vacancy occurs applications must be lodged with the Town Clerk, City Chambers, on or before 15th August.

Bursar—Charles Robertson, 1907.

John Leyden Bursary (*Arts*).—Founded in 1879 by the Glasgow Border Counties Association in memory of John Leyden, poet and scholar. The Fund consists of the sum of £429 3s. 8d. raised by subscription, the annual value being about £14. The Bursary is open to free competition under the same regulations as the competition Bursaries in the University. Tenable for three years. The holder to pass through the Arts course, and at the termination thereof to take the Degree of M.A.

Bursar—William A. Laird, 1908.

James Lochhead Bursary (*Arts*).—Founded in 1886 in terms of the Trust Disposition and Settlement of Mrs. Robina Mitchell, who bequeathed £500 for that purpose, in memory of her brother, who died in Ohio. A preference is given to students of the name of Lochhead, whose parents are members of the Established Church of Scotland, whom failing, to students whose parents are members of the said Church. The Bursary is tenable for three years in the Faculty of Arts, and is of the annual value of £17.

Bursar—[1] James M. Wordie, 1906.

Lochhead and Mitchell Bursaries (*Arts*).—Two in number and of equal value, founded in 1886, in terms of the Trust Disposition and Settlement of Mrs. Robina Mitchell, who bequeathed £2,000 (free of legacy duty) for that purpose. The present annual value is £34 to each bursar. A preference is given to students of the name of Mitchell or Lochhead, whose parents are members of the Established Church of Scotland, whom failing to students whose parents are members of the said Church. They are tenable for four years in the Faculty of Arts.

Bursar—John F. Mitchell, 1907; Graham B. Jardine, 1908.

---

[1] Vacant through lapse of time.

Logan Bursaries (*One in Theology and One in Medicine*).—Two in number, one in Divinity and one in Medicine, founded in 1863, by Mrs. Logan, widow of Mr. William Logan, tinsmith in Glasgow. The Bursary in the Faculty of Divinity is tenable for three years, and the one in the Faculty of Medicine for four years. The subjects of examination for the Logan Bursary in Medicine are those of the Medical Preliminary, viz.—1. English; 2. Latin; 3. Mathematics; 4. Greek or French or German; but the standard required is that of the Science Preliminary. The preference to the names Logan and Johnstone was cancelled by Ordinance No. 57 of the Universities Commission (1889). The value of each is £16 per annum. Appointment by the Senate.

Bursar in Theology.—Neil D. Mackinnon, 1907.

Bursar in Medicine.—[1] Thomas J. Mackie, 1905.

Lorimer Bursaries (*Four in Theology, Four in Medicine, and Eight in Arts*).—By Trust Disposition and Settlement of date 17th October, 1872, the late Mr. John Lorimer, merchant in Glasgow, directed his Trustees to make over to the Principal and Professors of the University of Glasgow, the residue of his estate, amounting to the sum of £8,594 5s. 5½d., the annual proceeds of £5,000 thereof to be applied in payment of Bursaries of an amount not exceeding £50 each, and tenable for three years. One Bursary at least is to be payable to a matriculated student of each of the following subjects:—1, Theology; 2, Medicine; 3, Philosophy; 4, Mathematics; and the proceeds of the remainder of such residue are to be applied in payment of smaller Bursaries tenable by students of the above-mentioned subjects.

The following regulations have been adopted by the Senate:—

1. The Bursaries shall be sixteen in number—namely, eight of the annual value of £25, and eight of the annual value of £17, and shall be tenable for three years.

2. Four Bursaries—viz., two at £25, and two at £17 shall be held by Students of Theology, and shall be open to competition to students entering the Divinity Hall. The second moiety of the third year's Burse shall not be paid until the Bursar shall have passed the examinations for the degree of B.D.

3. Four Bursaries—viz., two at £25, and two at £17, shall be held by Students of Medicine, and shall be open to competition to students who have attended the first session of their professional study in the University of Glasgow. The subjects of examination, which shall be prescribed by the Faculty of Medicine, are Elementary Anatomy, Elementary Chemistry, and Botany. The examinations are held at the same times as the Autumn Professional Examinations in these subjects, and, in the case of Chemistry and

---

[1] Vacant through lapse of time.

Botany, on the same papers. The second moiety of the third year's Burse shall not be paid until the Bursar shall have passed his Third Professional Examination for the degree of M.B.

4. Four Bursaries—viz., two at £25, and two at £17, shall be open for competition to students who, having passed their whole Preliminary Examination, are entering on their second session of attendance, and who, not having attended the classes of Logic, Moral Philosophy, and English Literature, propose to attend these classes in the following sessions. Candidates shall be examined in such subjects in English Literature and Logic as may be fixed by the Senate. The Examiners shall be the Professors of English Literature, Logic, and Moral Philosophy. Each Bursar must attend two classes in the Faculty of Arts. Immediately on his appointment, he must enter one or more of the classes of English Literature, Logic, and Moral Philosophy, and in the course of his tenure of his Bursary must attend, besides the above classes, one or more of the Honours classes in English Literature, Logic, or Moral Philosophy. The second moiety of the third year's Burse shall not be paid until the Bursar shall have passed examinations in Logic, Moral Philosophy, and English for graduation in Arts.

5. Four Bursaries—viz., two at £25, and two at £17, shall be open for competition to students of either sex who, having passed the whole Preliminary Examination, are entering on their second session of attendance. Candidates shall be examined in such subjects in Mathematics as may be fixed by the Senate. The Examiners shall be the Professors of Mathematics and Natural Philosophy. Each Bursar must attend two classes in the Faculty of Arts. Immediately on his appointment he must enter the class of Mathematics, and prosecute the course of study required for passing the Honours examinations in Mathematics and Natural Philosophy for a Degree in Arts. The second moiety of the third year's Burse shall not be paid until the Bursar shall have passed the examinations in Mathematics and Natural Philosophy for graduation in Arts or the First Science Examination in these subjects for graduation in Science.

In session 1909-10 four of the above £25 Bursaries will be open to competition—viz., one in Theology, one in Medicine, one in Philosophy, and one in Mathematics. The Bursaries in Theology will be decided by the results in the general competition for Bursaries in Theology. The competition for the Bursaries in Medicine will be held on 27th and 28th September, 1909. For the Bursaries in Philosophy the subjects of examination will be those prescribed for the John Ferguson Jaffrey Bursary (see p. 377), and the examination will take place along with the Autumn examinations for M.A. in English and Logic. The examination for the Bursaries in Mathematics will take place along with the Arts and Science Preliminary Examination in Mathematics, but may embrace higher papers.

Bursars in Theology.—[1] Robert E. Lee, M.A., 1906; Berry Preston, 1907; Robert P. Fairlie, 1908; Donald M. Logan, 1908.

Bursars in Medicine.—[1] Charles L. Sutherland, 1906; William M'Murray, 1907; John C. Pyper, 1908; Edwin Robertson, 1908.

Bursars in Arts.—[1] Caleb A. Stewart (Math.), 1906; Norman Crockatt (Phil.), 1907; William G. Burrell (Math.), 1907; Walter G. Cook (Phil.), 1908; James M. M'Alpin (Phil.), 1908; Alexander D. MacLaren (Math.), 1908; Neil Y. Wilson (Math.), 1908.

LUMSDEN BURSARY (*Theology*).—This Bursary was founded in 1850, by Mr. James Lumsden, stationer, Glasgow. Value, £18. It is given to a Divinity student of the first year, and may be held for four years. There is a preference to sons of members, or of deceased members of the Stationers' Company of Glasgow. The Patrons, viz., the Principal, the Professors of Divinity, Hebrew, and Church History, and the President of the Stationers' Company—have resolved that when no candidate with a preferential claim applies for the Bursary it shall be awarded in accordance with the results of the competition for Bursaries in Theology.

Bursar.—John M. Gray, M.A., 1908.

LUSK BURSARY (*Arts*).—Founded in 1876, in accordance with holograph settlement executed by Mr. Robert Lusk, merchant in Greenock, who bequeathed the sum of £1,000, reduced by legacy duty to £900, for "a Bursary in connection with the Glasgow University, to be given to the most successful student attending the preparatory course of studies in said University who may intend to follow out the ministry in connection with any of the Presbyterian bodies in Scotland," "and who may, on public examination or competition, be found to be best qualified and most deserving." The competition is open to first or second year's students in Arts. Tenable for three years, but may be continued for an additional year. Value, £37 per annum.

Bursar.—David Bell, 1908.

MACARTHUR BURSARY (*Medicine*).—Founded in 1881 by Miss Jean Macarthur, in memory of her uncle, John Macarthur, Doctor of Medicine in Glasgow. The Bursary consists of the annual proceeds of £500. The administration is vested in a Committee appointed annually by the Faculty of Physicians and Surgeons of Glasgow. The Bursary must be held by a student prosecuting the study of Medicine in the University of Glasgow. Under the rules laid down by the Committee, applicants must have completed three winter sessions of medical study, and not have entered on the fourth winter session. Preference will be given to applicants who have taken one or more First Class Certificates in the Medical Classes. The Bursary is tenable for two years.

---

[1] Vacant through lapse of time.

Application in case of a vacancy to be made prior to 15th April to Alexander Duncan, LL.D., Faculty Hall, 242 St. Vincent Street, Glasgow, who will furnish forms of application.

Bursar—[1] Charles Duguid, M.A., 1907.

M'Crie Bursaries (*Arts*).—These Bursaries were founded by the Rev. James M'Crie, D.D., of Dangart, Senior Minister of the U.P. Congregation of Old Meldrum, in the County of Aberdeen. They are of the annual value of £25, tenable for four years, provided the holder passes a prescribed examination at the commencement of each session and complies with the other conditions mentioned in the Deed of Foundation. The Bursary fund consists of certain lands in the parish of Colmonell and other heritable and movable property mortified for the purpose and vested in the Magistrates and Town Council of Ayr. The candidates must have been born in the parishes of Ballantrae, Colmonell, Barr, Girvan, Ayr, Old Meldrum, Tarves, Daviot or Bourtie, or in the City of Aberdeen, or in the Town of Ayr. The students must also be the sons either of mechanics, or of cottars, or of farmers not paying more than £100 of yearly rent, or of ministers not having more than £130 of yearly income, without respect to religious sect or denomination. Candidates of the names of M'Crie, Forsyth, M'Cracken, or Spark, are to have a preference if otherwise deserving. The Bursaries may be held along with other Bursaries. Forms of application may be obtained from Mr. P. A. Thomson, Town Clerk, Ayr, and should be lodged with him on or before the fifteenth day of August in each year in which a vacancy occurs. The names of candidates who are found to possess the prescribed qualifications will be sent by him to the Clerk of Senate that they may be entered at the University competition for Bursaries for students of the first year. (Three vacancies.)

Bursars—John Goudie, 1906; Robert M'Clement, 1907; James Crawford, 1908.

James Melville M'Culloch Bursary (*Arts*).—Founded in 1885 in memory of the late Rev. James Melville M'Culloch, D.D., minister of the West Parish, Greenock. It consists of the free annual income of about £400. It is open to competition to students of the first year in the Faculty of Arts, who shall have been educated for not less than three years at any school or schools in Greenock. Tenable for four years, the Bursar attending the qualifying course for the Degree in Arts. The second moiety of the fourth year's Burse shall not be paid until the Bursar shall have passed all the examinations required for the Degree of Master of Arts. In the event of a vacancy occurring otherwise than by lapse of time, the Senate may appoint a student of the same standing qualified in like manner, or may arrange a new competition.

---

[1] Vacant through lapse of time.

Bursar—David Buchanan, 1906.

MACDONALD BURSARIES (*Arts, Law, or Medicine*).—Two in number, founded in 1882, in terms of the Trust Disposition and Settlement of Mr. Alexander Macdonald, M.P., who bequeathed to the University £1,000 for the purpose of assisting students in a course of purely secular education. The Bursaries are equal in value (about £17 yearly each) and tenable for four years in Arts, Law, or Medicine. Only miners under the age of twenty-one years, who have worked underground in any part of the United Kingdom, are eligible as candidates. The Bursaries are awarded in accordance with the results of an examination in general knowledge, particularly in writing, arithmetic, geography, grammar, and history. (One vacancy.)

Bursar—Joseph Dunbar, 1908.

JOHN AND ISABELLA MACDOUGALL BURSARIES (*Arts*).—Founded in 1884, under the Trust Disposition and Deed of Settlement of Miss Isabella Macdougall, Perth. Miss Macdougall directed her Trustees to devote the residue of her means and estate to the foundation and endowment of one or more Bursaries, payable to students born in the county or city of Perth, attending the classes in the Faculty of Arts, in the Universities of Edinburgh, Glasgow, and St. Andrews. The Bursaries are of the annual value of about £33, and are tenable for a period not exceeding three years. The Trustees are the Patrons. The candidates, who may be of any religious denomination, must undergo an examination by examiners appointed by the trustees. The Bursaries are open to students who are either (1) about to enter on their first session, and who shall pass the Preliminary Examination in Arts, or (2) who have already attended the junior classes for one session. A vacancy occurring otherwise than by lapse of time may be filled up by the appointment, after examination, of a student of equal standing with the retiring Bursar. It is not competent for any person to hold any of these Bursaries along with any other Bursary or appointment yielding to him an annual income of fifty pounds or upwards. The Trustees are the following ministers in Perth, viz.:—The Rev. Walter E. Lee, East Church Parish; the Rev. F. H. Martin, St. Paul's Parish; the Rev. Peter R. Landreth, West Church Parish; the Rev. J. M. Scott, Middle Church Parish; and their successors in office for the time being, Mr. Thomas Soutar, retired banker, and Mr. Wm. Cochrane Young, solicitor in Perth. Candidates are requested to send in their names and addresses to Mr. Young, 9 St. John Street, Perth, on or before 15th August. (One vacancy.)

Bursars—[1] Alexander Macgregor, 1906; [1] William M. Smart, 1906; James Anderson, 1907; John Kennedy, 1907; Archibald Stewart, 1908.

MALCOLM M'EWEN BURSARY (*Arts or Science*).—Mr. William M'Ewen, tobacco manufacturer, Glasgow, who died on 16th December, 1878, by his Trust Disposition and Settlement dated 28th November, 1878, directed his trustees, Mr. James Boyd, writer, Glasgow, and others, to devote a sum of £500 to the foundation of a Bursary in the University of Glasgow, to be called the "Malcolm M'Ewen Bursary," in memory of his brother, Mr. Malcolm M'Ewen, who died on 16th January, 1878. The Bursary was founded in 1884. After consultation with the Senate, the Trustees resolved that the regulations for the Bursary should be as follows:—The Bursary is open to competition at the annual Bursary Examination to all students entering on the first session of attendance at the University, is awarded by the Senate in accordance with the results of that examination, and is tenable for four years. The Bursar on his appointment must elect to follow either the course of study qualifying for the Degree of M.A., or the course of study qualifying for the Degree of B.Sc., and must attend at least two classes each winter session. The Bursary is payable by equal moieties on the second day of February, and at the close of the winter session, but the second moiety of the fourth year's Burse shall not be paid until the Bursar shall have passed all the examinations for the Degree appropriate to the course of study chosen by him at the beginning of his tenure of the Bursary. A vacancy occurring otherwise than by lapse of time may, in the discretion of the Trustees, either be filled up at the first term thereafter, or not till the usual term at which the competition for the Bursary would, in ordinary course, have fallen due, and, in the latter event, accumulations from this source are to be added to the capital fund. (Vacant.)

JAMES MACFARLANE BURSARY (*Theology*).—Miss Helen Macfarlane, who died on 12th March, 1886, by a Codicil dated 15th August, 1882, to her Trust Disposition and Settlement, directed her Trustees to hand over to the Senate the Portrait of her late brother, Dr. John Macfarlane, Professor of the Practice of Medicine in this University, and the sum of £1,000 free of legacy duty for the foundation of a Bursary in the Faculty of Theology, in memory of her brother, the Rev. Dr. James Macfarlane, minister of Duddingston. Preference to the name Macfarlane. The competition is open to Divinity

[1] Vacant through lapse of time.

students of the first year, who hold a Degree in Arts of any Scottish University, or who have passed their examinations in any four subjects taken out of at least two departments for graduation in Arts. The Bursary is now of the annual value of £35, and is tenable for three years. In the case of a vacancy occurring otherwise than by lapse of time, the Senate may appoint, with or without examination, a student of the same standing as the previous Bursar.

Bursar—William Barclay, 1907.

John Macfarlane Bursary (*Medicine*).—Founded in 1871 by the brothers and sister of the late Dr John Macfarlane, Professor of the Practice of Medicine in this University, and to his memory. Patrons—The Faculty of Medicine. It is of £18 annual value, and it is tenable for three years. The competition is open to students who have attended the first session of their professional study in the University of Glasgow. The subjects of Examination to be prescribed by the Patrons; and the success of the candidates in the examination in General Education will form an essential element of the decision. Any surplus which may accumulate from vacancies or otherwise, is to be applied to establish a "Macfarlane Prize" in the Class of Practice of Medicine. The subjects of Examination for this Bursary are Elementary Anatomy, Elementary Chemistry, and Botany. The examinations are held at the same times as the Autumn Professional Examinations in these subjects, and in the case of Chemistry and Botany on the same papers.

Bursar—Charles Averill, 1908.

Robert Macfarlane Bursaries.—By a Mutual Trust Disposition and Settlement of date 7th January, 1888, Miss Mary Ann and Miss Margaret Macfarlane directed their Trustees to make over to the Senate of the University of Glasgow a sum of £3,000 for the foundation of Bursaries in memory of their brother, Robert Macfarlane, Writer, Paisley, out of the estate bequeathed by him to them. The following regulations, giving effect to the provisions of the Trust Deed, were adopted by the Senate on 6th April, 1905, and approved by the University Court on 4th May, 1905, viz.:

1. The Bursaries shall be called the Robert Macfarlane Bursaries, and shall be three in number, of equal annual value (at present £33).

2. In awarding the Bursaries the Senate shall give a preference to young men connected with Paisley.

3. One Bursary shall be tenable for three years in either Arts or Law, and the appointment shall be determined by the General Bursary competition in Arts. Candidates for this Bursary must satisfy the Senate that they are looking forward to be lawyers.

4. One Bursary shall be given for proficiency in Scots Law, shall be awarded on the report of the Professor at the close of the winter

session, and shall be tenable during the following year while the Bursar is attending some class or classes in the Faculty of Law not attended in a previous year; provided that the minimum attendance given by the Bursar be on one class of eighty lectures or on two classes each having forty lectures.

5. One Bursary shall be given, *mutatis mutandis*, for proficiency in Conveyancing.

These Bursaries are not tenable along with another Bursary or Money Prize.

Bursars—Thomas Petrie, 1908; Hugh B. Spens, B.A. (Scots Law), 1909; George Stevenson (Conveyancing), 1909.

MacGrouther Bursaries (*Arts*).—Two in number, founded in 1872, the one by Mrs. Sophia Susan MacGrouther, widow of Mr. James MacGrouther of Leigham Court Road, Streatham, Surrey, who mortified in favour of certain trustees the sum of £500; the other by the Misses Mary and Jane MacGrouther, residing in Glasgow, his sisters, who also mortified in favour of the same trustees the sum of £500, for the purposes of the foundation, and in memory of, and in fulfilment of the intentions of, the said James MacGrouther. The Senate are the Patrons. The Bursaries are open to competition to students entering the Faculty of Arts for the first time, and are awarded to students who, having passed the Arts Preliminary, have gained the highest marks in Mathematics in the Bursary examination, and have not obtained a bursary in the general competition. They are tenable for four years, subject in each case to the condition that the Bursar shall pass the examinations required of students proceeding to the Degree of M.A. An appointment to the £15 Bursary will be made in October, 1909.

Bursars—[1] Robert C. Gray (Math.), 1905; William Anderson (Math.), 1907.

M'Kechnie Bursaries (*Any Faculty*).—Two in number, founded by the Trust Disposition and Settlement of the late Thomas M'Kechnie, merchant in Girvan, who bequeathed for that purpose the sum of £2,000 to the Minister of the Established Church in Girvan, the Magistrates of Girvan, and others, and appointed them patrons of the Bursaries. The Patrons, in nominating and presenting students to the Bursaries, are instructed to prefer, in the first place, such as are of the founder's kindred; secondly, such as are of the name of M'Kechnie; and thirdly, such as were born in the parish of Girvan, provided that such students are properly qualified by their previous education for entering the University of Glasgow. Failing candidates qualified as above, the Bursaries are to be awarded to those who shall be found best qualified and deserving.

---

[1] Vacant through lapse of time.

The Bursaries are tenable for four years. When a vacancy occurs application should be made to Messrs. W. and D. Andrews, solicitors, Girvan, early in August.

Bursars—James Hill (Arts), 1907; Gordon A. Valentine (Med.), 1907.

Mackintosh Mental Science Bursary (*Medicine*).—Founded in 1889 by Dr. Donald Mackintosh of London, in memory of his brother, Dr. Alexander Mackintosh, for many years superintendent of the Royal Lunatic Asylum, Gartnavel. Value, about £31. Tenable for one year. The competition is open to matriculated students of medicine who have attended the Lectures on Insanity in the University, and will be awarded in accordance with the results of an examination conducted in June by the Professor of Practice of Medicine and the Lecturer on Insanity acting conjointly. The holder of the Bursary shall, while holding it, devote special attention to the practical study of Insanity to the satisfaction of the Faculty of Medicine.

Bursar—Arthur Turnbull, 1908.

M'Kissack Bursary (*Medicine, Arts, or Divinity*).—Founded in 1900 in terms of the Trust Disposition and Settlement of Mrs. Jane M'Kissack, Nairn, who bequeathed £750 for that purpose, in memory of her husband, Charles M'Kissack. The Patrons of the Bursary are the Provost and Bailies and the Ministers of the Presbyterian and Congregational Churches in the Royal Burgh of Nairn. The Bursary is tenable for four years, and is to be given to a medical student prosecuting his studies at any College, University, or Training Institute approved by the Patrons, in preparation for Christian mission work among the Jews. Failing a student in medicine, the Bursary may be given to a student in Arts or Divinity having the same object in view. Applicants must be of British nationality and not under seventeen years of age at the date of presentation. Preference, *cæteris paribus*, will be given to candidates of the name of M'Kissack, or natives of the counties of Elgin and Nairn, or candidates who have at any time resided for welve consecutive months in these counties. When the Bursary is vacant, application should be made to Messrs. Lamb & Co., olicitors, Nairn.

Bursar—William J. Jenkins, 1907.

Maclean Trust Bursaries (*Arts*).—Under the scheme for the dministration of the Trust of the late Colonel Alexander Maclean, pproved of by the Court of Session on 18th July, 1895, the Governors are authorised to apply a portion of the revenue of the Trust in payment of Bursaries of the yearly value of not less than

£25 each, tenable for four years at any Scottish University. The Bursaries are open to students of either sex of the name of Maclean entering on the Arts curriculum, and are awarded by competitive Examination in such manner as the Governors shall determine. The Bursars must regularly attend at least two classes each winter session in the curriculum for a degree in the Faculty of Arts. But any Bursar who has held his Bursary throughout a three years' curriculum in the Faculty of Arts, and taken a degree in that Faculty, may continue to hold it during the fourth year in any other Faculty. The Governors are the Lord Provost and Magistrates of the City of Glasgow. Forms of application can be received in the month of April each year, from the Town-Clerk, Glasgow, with whom applications must be lodged. (One vacancy.)

Bursars—Catherine M. Maclean, 1907 ; Mary A. Maclean, 1907; Helen Maclean, 1907 ; Peter Donald Maclean, 1908.

MAITLAND CLUB BURSARY.—In 1888 Dr. W. H. Hill and Mr. J. Wyllie Guild, the then surviving members of Council of the Maitland Club, disposed of the remainder of the stock of the Maitland Club publications, and in pursuance of resolutions passed at meetings of the Council held on 3rd and 17th August, 1870, handed over the proceeds (£140) to the Senate for Bursary purposes. The free income (£6) may be annually bestowed without any competitive examination on such student as the Senate may consider deserving.

ALEXANDER MANDERSON BURSARY (*Arts*).—Mrs. Margaret Manderson or Macintyre, Greenock, who died on 13th April, 1905, by her Trust Disposition and Settlement dated 17th February, 1903, bequeathed to the Senate of the University £500, free of legacy duty, to found a bursary to be called the Alexander Manderson Bursary in memory of her deceased brother. The annual value is £15. Candidates must be natives of the Lower Ward of Renfrewshire or have been educated for not less than three years in a school therein. The Bursary shall be open to students of the first year, both men and women, and awarded after a competitive examination in such subjects or subject in Arts as the Senate may from time to time prescribe. It is tenable for three years, subject to the condition that the second moiety of the Bursary for the last year shall not be paid until the bursar shall have passed all the examinations required for the ordinary Degree of M.A. (Vacant.)

MARSHALL BURSARIES (*One in Theology and One in Medicine*).—Mrs. Barbara Lauder or Marshall, relict of Alexander Marshall, wholesale stationer, Bell Street, Glasgow, by her Will dated 8th December, 1874, bequeathed to the Senatus of Glasgow University the sum of £1,000, under deduction of legacy duty, to found two

Bursaries of equal value, one in Divinity and the other in Medicine. Tenable for four years. Preference to the name of Marshall, but provided "that the Principal and the Professors shall nominate and appoint such students only to the said Bursaries as they shall find, on such examination as they may appoint, to be properly qualified for entering upon the study of Divinity and Medicine at the said University." The subjects of examination for the Marshall Bursary in Medicine are those of the Medical Preliminary, viz.:—1. English; 2. Latin; 3. Mathematics; 4. Greek or French or German; but the standard required is that of the Science Preliminary. Present value, £17 per annum to each Bursar.

Bursar in Medicine.—Alexander S. Wilson, 1908

Bursar in Theology.—John G. Ritchie, 1907.

Marshall Trust Bursaries (*Arts*).—Under scheme 108, section 29, of the Educational Endowments (Scotland) Commission, approved by Her Majesty in Council, on 17th March, 1888, the Governors of the Marshall Trust are instructed to apply (1) a sum not exceeding £300 per annum in providing University Bursaries. These Bursaries are awarded by competitive examination among pupils of either sex who have held free scholarships or school bursaries under the scheme, and pupils of either sex who are resident and attending public or State-aided schools in Lanarkshire or Stirlingshire, whose parents or guardians are of the class specified in section 25 of the scheme. The Governors may apply (2) a further sum of £300 per annum in providing similar Bursaries to be awarded solely to pupils who have held free scholarships under the scheme, who shall have competed for but failed to obtain any of the first mentioned Bursaries, but on condition that such free scholars shall pass the examination prescribed by the Governors. Each Bursary is £30 per annum, and is tenable for not more than five years. Forms of application may be obtained from the Superintendent of the Trust—Mr. William Bunting, 111 Bath Street, Glasgow—and should be lodged with him on or before the 15th day of August in each year. The names of candidates who are found to possess the prescribed qualifications will be sent by him to the Clerk of Senate that they may be entered at the University competition for Bursaries for students of the first year. The Bursaries will be awarded to those candidates highest in order of merit who fail to win a Bursary in the general competition. Under (1) there are two vacancies, and under (2) there are also two vacancies.

Bursars.—[1] William Y. Colquhoun, 1904; [1] Malcolm Manson, 1904; [1] Robert Houston, 1904; [1] Malcolm Littlejohn, 1904; John M. Short, 1905; Daniel W. Ritchie, 1905; Kenneth MacLean,

---

[1] Vacant through lapse of time.

1905; Alexandrena Carswell, 1905; Benjamin M'Kenna, 1906; Stuart C. Parker, 1906; James Manson, 1906; Mary F. Campbell, 1906; Duncan Anderson, 1907; Robert F. Paterson (1907), 1908; Archibald Chisholm, 1907; John Ellis, 1907; David I. Byers, 1908; James Y. Hart, 1908; Gavin Lawson, 1908; John Newton, 1908.

WILLIAM MEIKLEJOHN BURSARY (*Arts*).—Founded in 1889 by the Trustees of the late Mrs. Mary Dougall or Meiklejohn, who died on 8th April, 1888, and left £600 for that purpose. The Bursary is of the annual value of £20, and tenable for four years in the Arts Classes of any Scottish University by a student who is prosecuting his studies with the view of becoming a Minister of the Church of Scotland. The Patrons are the Ministers and Elders of the Kirk-Session of the Parish of Stirling. The Bursary is open to candidates who have received the whole or part of their past education at the High School of Stirling, whom failing to natives of Stirlingshire. Application to be made to Mr. James Brown, Solicitor, 10 Barnton Street, Stirling.

MENZIES BURSARIES (*Arts*).—The late Mr. James Menzies, of Glasgow, by his Will, dated 3rd November, 1837, left a sum of money to establish four Bursaries at either of the Universities of Edinburgh, Glasgow, or St. Andrews, tenable for four years, one to be given each year. The value of each Bursary is £45 per annum, but varies at the discretion of the Patrons. The Patrons are Sir Neil Menzies, Bart., of Menzies, and the Parish ministers of Dull, Weem, and Fortingall. In the first place, the kindred of the Testator; secondly, persons of the name of Menzies; thirdly, those born on the Menzies estates, will be preferred—provided always that they shall be found properly qualified by previous education; and failing these, the Patrons can present such as shall be found best qualified after due examination. The following are the subjects of examination:—*Latin*—Translation, (1) English into Latin; (2) Latin into English, with grammatical questions and exercises. *Greek*—Translation, Greek into English, with grammatical questions and exercises. *English*—(1) The growth, structure, and grammar of the language; (2) The History of English Literature; (3) A short essay on a prescribed subject. *Mathematics*—(1) Arithmetic, general; (2) Algebra, up to and including Quadratic Equations; (3) Geometry, Euclid, the first six books, and the first twenty-one propositions of the eleventh book, with deductions; (4) Trigonometry, up to and including the solution of triangles. Bursars to attend in some one of the above Universities the classes in their regular order for the M.A. Degree. Candidates are requested to send their names to Mr. Thomas Yool, The Menzies Estates Office, Aberfeldy, on or before 15th August. (One vacancy.)

Bursars—[1] Arthur J. A. Menzies (at Edinburgh University), 1905; John W. Menzies (at Edinburgh University), 1906; Robert C. Rogers (at Edinburgh University), 1907; Donald Kerr, 1908.

MERCHANTS' HOUSE BURSARIES (*One in Arts, One in Law, and Two in Medicine*).—Founded in 1879 by the Merchants' House of Glasgow. The Bursaries are of the annual value of £25 each, and are four in number—viz., two in Medicine, one in Arts, which may also be held in Engineering and Mechanics, and one in Law, tenable by students attending the requisite classes in the above Faculties, with a preference to the sons of matriculated members of the Merchants' House, and such others as the Lord Dean and Directors may deem deserving. 1. The Bursaries in Medicine are tenable for four years. Candidates must be entering on their first winter session of attendance on the ordinary curriculum for Medical Students. 2. The Bursary in Arts, or in Engineering and Mechanics, is tenable for four years. Candidates must be entering on their first session of study, and must attend each session two at least of the classes in the Arts curriculum, including, at the option of the candidate, the class of Civil Engineering and Mechanics. 3. The Bursary in Law is tenable for three years. Candidates must be entering on their first session of attendance on the classes in the Faculty of Law, and must give regular attendance for the three years on classes in that Faculty. The subjects of examination for the Bursaries in Medicine are the subjects of the Medical Preliminary Examination, viz. 1. English; 2. Latin; 3. Mathematics; 4. Greek or French or German; but the standard required is that of the Science Preliminary. For the Bursaries in Arts and Law the subjects are those prescribed for the General Bursary Competition, special importance being given in the examination for the Arts Bursary to the subject of Mathematics. When a vacancy occurs, applications should be lodged with W. H. Hill, LL.D., Clerk to the Merchants' House, on or before 15th August.

Bursar in Arts—Peter Revie, 1906.

Bursar in Law—[1] David H. Battersby, M.A., 1905.

Bursars in Medicine—John A. Harper, 1907; Henry S. Banks, 1908.

METCALFE BURSARIES (*Science*).—Founded by the late Miss Sarah Metcalfe, Glasgow, who, by her Deed of Settlement and Codicils, dated respectively 8th August, 30th September, and 7th October, 1853, bequeathed, subject to the liferent of her brother, Mr. William Metcalfe, certain properties in Glasgow, "for encouraging poor students in prosecuting the studies of Mathematics, Practical Astronomy,

---

[1] Vacant through lapse of time.

Chemistry, and Civil Engineering." Mr. Metcalfe died on 25th January, 1869, and by resolution of date 14th April, 1870, the Senate instituted, besides a Metcalfe Fellowship of £100 annual value (for which see Index), at least two Metcalfe Bursaries or Scholarships, each of the annual value of £25, and tenable for two years, subject to the condition that the scholar attend the four classes of Civil Engineering, Senior Mathematics, Practical Astronomy and Chemistry ; two at least of these classes to be taken each year. The scholars to be appointed by examination in Pure Mathematics, including the elements of Plane Trigonometry, of Mechanics, and of Theoretical Astronomy, from among matriculated students entering the Intermediate Honours class of Mathematics, or the class of Chemistry. (One vacancy.)

Bursars—Leo H. P. Esdaile, 1908 ; Thomas Hyslop, 1908 ; John Littlejohn, 1908.

MITCHELL (See Lochhead and Mitchell, p. 382).

MONTEITH BURSARIES (*Arts*).—Founded in 1869 by Mr. James Monteith of 38 Duke Street, St. James's, London. Three in number, each of the annual value of about £15, and tenable for three years. They are open for competition to all matriculated students of the Faculty of Arts, being natives of Scotland, and sons of Scottish parents, and may be held along with another Bursary. The examination to be in French and German in alternate years. Occasionally an extra Bursary will be given to the second-best candidate, of the same value as the others, but tenable only for one year. At the commencement of session 1909-10 a regular three years' Bursary will be competed for, the examination being in French.

Bursars—[1] John Robb, 1906 ; William G. Walker (French), 1907 ; David L. Grant (German), 1908.

JOHN MONTEITH BURSARIES (*Medicine*).—Founded in 1884 by Mrs. Helen Monteith, Greenbank, Dowanhill Gardens, Glasgow, in memory of her husband, the late John Monteith. Mrs. Monteith assigned the sum of £1,000 to Dr. John Gray M'Kendrick, Professor of the Institutes of Medicine, Dr. James Duncan M'Laren, Fellow of the Faculty of Physicians and Surgeons in Glasgow, the late James Graham, LL.D., writer, Glasgow, and Robert Monteith, her adopted son, as trustees, in the first instance, for the administration of the fund. The annual income after payment of the expenses of administration is to be awarded as two Bursaries to students who have attended the first and second sessions of their professional studies in the University of Glasgow with a view to Graduation in Medicine in that University. The Bursaries are tenable for two years. One

[1] Vacant through lapse of time.

Bursary is awarded annually in the month of November, and is given to the candidate who gains the highest number of marks in the subjects of Anatomy and Physiology at the Professional Examinations in these subjects held during the previous year (*i.e.* the April and October preceding said month of November). The founder has directed that it be represented to the holders of the Bursaries that they should feel themselves in honour bound after graduation to render professional assistance to the poor as much as may lie in their power.

Bursars.—[1] Charles Duguid, 1907 ; Robert H. Deans, 1908.

MORGAN BURSARIES (*Arts and Theology*).—Mr. John Morgan, West India Merchant, who died at Springfield House, Bishopbriggs, on 4th May, 1894, in his Trust Disposition and Settlement directed the Merchants' House to pay over half-yearly to the Presbytery of Glasgow one third of the net revenue of his estate to be applied in providing Bursaries for students in the University of Glasgow intending to become ministers of the Church of Scotland, one third to students in Divinity and two thirds to students in Arts. The students in Arts must be under twenty years of age, and must have passed the Preliminary Examination. The appointments are made for one year only, but may be renewed from year to year for one or more years. No Morgan Bursary shall exceed £20 a year. The holder of another Bursary of £20 or upwards cannot be appointed o a Morgan Bursary, but the holder of a Bursary of less than £20 nay be appointed to a Morgan Bursary of such value that the two Bursaries together shall not exceed £20. Further particulars and chedules to be filled up by applicants may be obtained from the Presbytery Clerk.

MUIR BURSARIES (*Two in Arts or Science, Two in Science, and One n Theology*).—Founded in 1880, in terms of the Trust Disposition nd Settlement and Codicil thereto of the late Mr. Matthew A. luir, merchant in Glasgow, who bequeathed to the Senatus Acaemicus of Glasgow University, free of legacy duty, the sum of 1,000 for providing a Bursary in connection with the Chair of ivinity, to be awarded to a student of Divinity during the last iree years of his curriculum ; a sum of £1,000 for providing two ursaries of equal amount in connection with the Chair of Matheatics, to be awarded to advanced students in Mathematics, the riod of tenure to be fixed by the Senate ; and a further sum £1,000 for providing two Bursaries of equal amount in connecon with the Chair of Civil Engineering and Mechanics, to be varded to advanced students of Engineering and Mechanics, the riod of tenure to be fixed by the Senate. Any of the Muir

---

[1] Vacant through lapse of time.

Bursaries in Mathematics and Civil Engineering may be held along with another Bursary.

The following rules and regulations have, in accordance with the provisions of the Deed, been sanctioned by Mr. Muir's trustees, and are to be observed in all time coming :—

1. *Muir Bursary in Divinity.*—Candidates must be entering on their first session in Theology in the University, and the appointment to the Bursary shall be determined by the result of the annual competitive examination for Bursaries in Theology. The competition shall be open to candidates holding a Degree in Arts in any Scottish University, or who have passed their examinations in four subjects taken out of at least two departments for graduation in Arts. The Bursary shall be tenable for three years, but the second moiety of the third year's Burse shall not be paid until the Bursar shall have passed the examinations for the Degree of Bachelor of Divinity.

2. *Muir Bursaries in Mathematics.*—Two in number, of which the Junior Bursary shall be tenable for two years, and the Senior Bursary for one year, the former being of half the annual value of the latter. The appointment shall be determined by the proficiency shown by the candidates in the earlier part of their Mathematical course, and the successful candidates shall prosecute the study of the Higher Mathematics during their tenure of the Bursaries. No candidate shall be allowed to hold both Bursaries at the same time. Should the Junior Bursary be resigned by the Bursar at the end of his first year of tenure, the Senate may make an appointment for the remainder of the period.

3. *Muir Bursaries in Civil Engineering and Mechanics.*—Two in number, and of equal value. The appointments shall be determined by the proficiency shown by the candidates in the earlier part of their Engineering course. The period of tenure for each Bursary shall be the session of attendance on the Senior Class of Civil Engineering and Mechanics (Class IV.). Should a vacancy occur by reason of non-attendance of a selected candidate, the Senate may make an appointment for the remainder of the period. No candidate shall be allowed to hold both Bursaries.

4. The Senate reserve the right to withhold the Bursary in any case in which a satisfactory standard has not been attained by any of the competitors.

5. Arrangements for carrying out these rules and regulations shall from time to time be made by the Senate, and notice thereof shall be published in the *University Calendar*.

Arrangements for Session 1909-10.—*Muir Bursaries in Mathematics.*—The appointment to the Junior Bursary, tenable during essions 1910-11, 1911-12, shall be determined by the results of the written examinations passed in the course of the session 1909-10 by the public students of the Ordinary Class of Mathematics. The uccessful candidate shall, during session 1910-11, attend the Intermediate Honours Class, and during session 1911-12 the Advanced Honours Class of Mathematics. The appointment to the Senior Bursary, tenable during session 1910-11, shall be determined by he results of the written examinations passed in the course of the ession 1909-10 by the public students of the Intermediate Honours Class. The successful candidate shall, during 1910-11, attend the Advanced Honours Mathematical class.

Muir Bursaries in Civil Engineering and Mechanics.—Candidates or the Bursaries tenable during session 1910-11 must be (*a*) students ttending during session 1909-10 Engineering Class II. or Electrical Engineering Class I. or Class II., who are also attending or have in previous session attended the Junior or the Senior Class of Engineering Drawing and Calculations, or (*b*) students attending uring session 1909-10 the Junior or the Senior Class of Engineering Drawing and Calculations, who have in a previous session ttended the Engineering Class II. or Class III. or Electrical ngineering Class I. or Class II. The appointment will be made y consideration of merit shown during attendance on, and by xamination in the subjects of, those classes. The successful ndidates shall, during session 1910-11, attend the Senior Class of ivil Engineering and Mechanics (Class IV.).

Bursars in Mathematics.—Junior Bursars for session 1909-10, rthur S. Morrison, 1908; for sessions 1909-10, 1910-1911, James hite, 1909; Senior Bursar for session 1909-10, Charles C. Mylles, 09.

Bursars in Civil Engineering and Mechanics for session 1909-10.—ancis Morrison and William F. Sparey, 1909.

Bursar in Theology.—[1] William K. White, 1906.

WILLIAM MUIR DIVINITY BURSARIES (*Theology*).—Established in 86 by the Governors of the Glasgow General Educational Endownts Board, under Section 35 of their Scheme. The Bursaries are o in number, each of £25 annual value. Candidates must have sed the examination of the Examining Board for entrance to the vinity Hall of the University, and must lodge applications with . W. H. Macdonald, Hutchesons' Buildings, Ingram Street, on or ore the 27th day of September. The Bursaries are awarded in ordance with the results of the competition for Bursaries in ology, and are tenable for two years.

ursars.—[1] David Y. Robertson, 1907; Dugald M'Arthur, 1908.

---

[1] Vacant through lapse of time.

NOTMAN BURSARY (*Theology*).—By deed of Settlement dated 15th August, 1876, Mrs. Margaret Adam Notman or Napier of Hillhead, Glasgow, widow of Mr. William Napier, directed her executors to pay over to the Principal and Professors of the Glasgow College, the sum of £500 sterling for the purpose of founding a Bursary in the College, to be called the Notman Bursary, in memory of her father and brother. The Bursar to be a student of Divinity, who shall appear in public examination to be best qualified and deserving. Present value, £18 per annum.

Bursar—[1] James MacMorland, 1906.

JOHN OLIPHANT BURSARIES (*Medicine and Civil Engineering*).—Miss Agnes Leckie Oliphant, sometime of Dunfermline and thereafter residing in Vienna, who died at Vienna on 30th August, 1903, bequeathed the residue of her estate, amounting to £2567 13s. 5d., to the University Court, for the purpose of founding a Bursary or Bursaries in the Faculty of Medicine and a Bursary or Bursaries in the Department of Civil Engineering in the University, under such regulations as may be approved by her executors. The Bursaries are to be called the John Oliphant Bursaries, and are tenable for six years. The holders must be Protestants, and a preference is given to orphans. Present value of each Bursary, £35 per annum.

The following are the regulations for the John Oliphant Bursary in Medicine :—

There shall be one bursary in Medicine, open to competition to students entering on the curriculum for Degrees in Medicine. The subjects of examination are those of the Medical Preliminary, viz. 1. English ; 2. Latin ; 3. Mathematics ; 4. Greek or French or German ; but the standard required shall be that of the Science Preliminary. The examination shall be held at the same time as the Science Preliminary and on the same papers. The John Oliphant Bursary in Medicine shall be tenable for six years, if the Bursar continues to prosecute his medical studies during that period, and the Bursary shall not be held along with any other bursary.

The following are the regulations for the John Oliphant Bursary in Civil Engineering :—

There shall be one bursary in the department of Engineering. It shall, upon the recommendation of the Faculty of Science, be awarded in the month of November to the candidate who has the best record in his First Science Examination. Students who have passed the whole of that examination, including the subjects specified in Ord. No. 23, Section IX., subsection 1, but not necessarily including the subjects specified in Ord. No. 23, Section IX., subsection 2, may offer themselves as candidates, provided that, in the case of the first appointment, the last subject of the First Science Examination has been passed since 1st November, 1907, and provided that, in the case of subsequent appointments, the last subject of the First Science Examination has been passed since the date of the appointment immediately preceding. The usual period of tenure shall be three years, but a bursar may be reappointed for a further period, provided that no person shall be permitted to hold the bursary for more than six years in all. The bursar during his tenure shall prosecute the course of study for the Degree of B.Sc. in Engineering, and he shall not receive payment of the last moiety of his bursary until he has graduated as B.Sc. If he graduate before the expiry of his tenure he may retain his bursary during the remainder of his tenure, provided that he engage in a course of postgraduate study or research approved by the Senate.

---

[1] Vacant through lapse of time.

The John Oliphant Bursary in Engineering may be held along with the James Watt Scholarship, but not with any other Bursary.

James Paterson (Baptist) Bursary (*Arts*).—Founded in 1885 in commemoration of the completion, in 1879, of the fiftieth year of the existence of Adelaide Place Baptist Church, Glasgow, and of the Pastorate thereof of Dr. James Paterson during the same period. The sum subscribed for the purpose, amounting with interest to £619, was assigned and conveyed to the Senate in trust to be applied in all time coming to provide a Bursary in the Faculty of Arts to be called the James Paterson Bursary. The Bursary is of the annual value of £22, is tenable for four years, and is open to competition to any student of the first year in Arts who is a member of a Baptist Church, and who is entering upon his studies with a view to the ministry in the Baptist denomination. The Bursar during his tenure of the Bursary must be a member of Adelaide Place Baptist Church or of some other Baptist Church in Glasgow or neighbourhood. The Bursar must graduate in Arts, and before payment of the second moiety of the last year's Bursary must produce evidence that he has taken the degree, or that he has passed all the examinations necessary for graduation. On the Bursary falling vacant otherwise than by lapse of time, the Senate may appoint for the remainder of the term, or for the full period after competition. Before payment of the second moiety in each year the Bursar must produce a certificate of fitness for the ministry from a Committee of Adelaide Place Baptist Church, from the Baptist Union of Scotland, or some recognized Educational Institution of the Baptist Body. (Vacant.)

James Paterson Bursary (*Arts*).—In 1904 the Trustees of the late Rev. James Paterson, D.D., of Adelaide Place Baptist Church, Glasgow, transferred to the University Court £560 of Caledonian Railway 4 per cent Consolidated Preference Stock, No. 2, for the foundation of a Bursary in Arts in terms of his Trust Disposition and Settlement. He prescribed not only the subjects but also the books on which the competitors should be examined. The following regulations drawn in accordance with the provisions of the will were adopted by the Senate on 6th April, 1905, and approved by the University Court on 4th May, 1905, viz.:

1. The Bursary shall be in the Faculty of Arts, and shall be open for competition to students of the first or second year.

2. Candidates shall undergo a special examination in Latin (Virgil), Greek (the New Testament), Hebrew (Proverbs), and Logic (Whately's Logic).

3. The Bursary shall be tenable for three years, and the Bursar shall study for a degree in Arts.

4. The second moiety of the third year's burse shall not be paid till the Bursar has taken the degree of M.A.

The Bursary, which is of the annual value of £17, will be open to competition in October, 1909.

JAMES ALEXANDER PATERSON BURSARIES (*Arts and Medicine*).—Founded in 1892, under the Trust Disposition and Settlement of James Alexander Paterson (for many years a member of Shamrock Street United Presbyterian Church), who died at Glasgow on 31st January, 1889.

The Bursaries in Arts are tenable for three years. They are open to competition to students entering upon the first or second year of their attendance at the University, who purpose studying for the ministry in connection with the United Free Church, and who intend to qualify for and take, in the University of Glasgow, the degree of M.A. Each candidate before the competition must lodge with the Clerk of Senate, (1) a written declaration of his intention to comply with and observe these conditions, and (2) a certificate from the Convener or one of the Clerks of the College Committee of the United Free Church of Scotland, bearing that the Candidate is recognized by that Church as an accepted student pursuing his studies with a view to the ministry therein. In October, 1909, three Bursaries of £30, £20, and £10 respectively will be offered for competition. The Examination is in Hebrew (Book of Ruth) and Greek (Acts of the Apostles). The last moiety in the last year is payable after the Bursar has passed all the examinations for the degree of M.A. In the event of the holder of a Bursary graduating at the end of his second year of tenure, he shall retain his Bursary, during the third year of tenure, only on condition that he shall engage in a course of study in the University of Glasgow approved by the Senatus Academicus in subjects included in the curriculum for degrees in Arts.

The Bursaries in Medicine are tenable for four years. They are open to competition to students entering upon the first or second year of their medical curriculum at the University of Glasgow, who intend to qualify for and take, in the University of Glasgow, the degree of M.D. Each candidate must before the competition deliver to the Clerk of Senate a written declaration of such intention. The subjects of examination are Mathematics and Natural Philosophy, and the papers will be on the same standard as the papers in Mathematics and Applied Mathematics (including Dynamics), for the Bursary competition in Arts. Two Bursaries of £25 and £20 respectively will be offered to competition in October, 1909. The last moiety in the last year is payable after the Bursar has passed all the examinations for the degrees of M.B. and Ch.B.

It shall be competent for the holders of these Bursaries, whether in Arts or in Medicine, to hold any other Bursary or Scholarship in this University, if the Regulations of that other Bursary or Scholarship permit.

Bursars in Arts—George A. Johnston (£30), 1907; John Paterson (£20), 1907; James B. Primrose (£10), 1907; William Hamilton (£30), 1908.

Bursars in Medicine—[1]James Dunlop (£35), 1905; [1]James B. Galbraith (£25), 1905; John Gibson (£25), 1906; James Harper, M.A. (£20), 1906; John A. Harper (£25), 1907; John B. Orr (£20), 1907; Henry S. Banks (£25), 1908; John F. Lang, M.A., (£20), 1908.

Patrick Bursaries (*Arts*).—These Bursaries were founded in 1860 by Mr. William Patrick of Roughwood, W.S., and were originally two in number, the one consisting of the free annual proceeds of a sum of £2,000 of consolidated stock of the Glasgow and South-Western Railway, the other of the free annual proceeds of £1,000 of the same stock. They were tenable for two years, but might be continued for other two. By Ordinance No. 85 of the Universities Commission (1889) the number of Bursaries was increased to three, all equal in value, and tenable for four years. The present annual value of each is £32. If a Bursar graduate at the end of three years he shall only retain his Bursary during the fourth year of tenure if he shall engage in a course of study approved by the Senate in subjects included in the curriculum for Degrees in Arts or in Pure Science. In other respects also the provisions of University Court Ordinance No. XXVII. apply to the Patrick Bursaries. Candidates must have gone through a course of education at some one of the Public Schools in the County of Renfrew, where a regular course of Classical Study is pursued; and must be in circumstances to render it desirable that they should have assistance in prosecuting their studies at the University. The Rector or Head Teacher of such Public School to grant a certificate to any number, not exceeding four of his best scholars, who shall be entitled to present themselves to the Principal and Professors as candidates for the Bursaries. Certificate forms may be obtained from the Assistant Clerk (Matriculation Office).

---

[1] Vacant through lapse of time.

Bursars—[1] Adam Scott, 1905; William C. H. Neill, 1907; Hercules D. Soutter, 1908.

PENDER MEMORIAL BURSARY.—Founded in 1898 by a Committee of which the Marquis of Tweeddale was Chairman to commemorate the leading part taken by the late Sir John Pender, G.C.M.G., in the establishment and development of Submarine Telegraphy and in its extension throughout the world. The fund consists of about £1,650, and the annual value is about £60. The following regulations were made by the Senate after communication with the Glasgow and West of Scotland Technical College and the Committee:—1. That the holding of a Diploma in Electrical Engineering of the Glasgow and West of Scotland Technical College be a condition of appointment to the Bursary. 2. That the appointment to the Bursary be made by the authorities of the Glasgow and West of Scotland Technical College. 3. That the Bursary be tenable for one year. 4. That the Bursar be required during his tenure to attend in the University three full courses or their equivalent from among those that would constitute in his case a qualifying curriculum of study for the Degree of B.Sc. in Engineering. 5. That, in the event of there being no candidate deemed worthy of appointment in any year, the interest be held over to provide a second Bursary in a subsequent year.

Bursar—Martin Pitt, 1908.

GLASGOW PERTHSHIRE SOCIETY'S BURSARY (*Arts*).—Founded by the Glasgow Perthshire Society in 1873. Value, £25, and tenable for three years. Open to competition to natives and sons of natives of the county of Perth, and also to sons of persons who are *bonâ fide* residents in that county, and have resided in it for not less than three years at the time of the competition. Candidates must be entering on their first year of attendance as students in the University of Glasgow, and the holder of the Bursary will be required to complete attendance on at least two of the classes in the curriculum of Arts in each session. When a vacancy occurs names of candidates should be sent to Mr. George Gray, Jun., 156 St. Vincent Street, Glasgow, Secretary of the Society, not later than the fifteenth day of August preceding the competition.

Bursar—[1] William M. Smart, 1906.

POLLOCK BURSARIES (*Arts*).—Founded in 1878, in terms of the Trust Disposition and Settlement of the Rev. Alex. Pollock, senior minister of the Free South Church, Paisley, who bequeathed £3,000, free of legacy duty, for that purpose. The Bursaries are at present each of the annual value of £38, and are designed to assist young men entering the University of Glasgow, whose circumstances are such as to render it desirable that they should have assistance in prosecuting their studies. The patrons are the Principal and Professors in the Faculty of Arts. Each candidate must lodge along with his application a letter from the Rector, Headmaster, or Classical Teacher of one of the Public Schools or Public Academies within the parliamentary boundaries of the burgh of Paisley, where a regular course of Classical study is pursued, certifying that he has completed his course of education at such school or academy. Certificate forms may be obtained from the Assistant Clerk (Matriculation Office). Should no such qualified candidates present themselves, or should the otherwise qualified candidates fail to reach a satisfactory standard in the Bursary Examination, the Bursary or Bursaries vacant for the time being shall be open to all the candidates in the ordinary Bursary Competition. The Bursaries are three in number, and are tenable for three years, during which period the Bursars must be students in the Faculty of Arts. The second moiety of the third year's Burse shall not be paid until the Bursar shall have passed the examinations in four subjects taken out of at least two departments for graduation in Arts.

---

[1] Vacant through lapse of time

Bursars—[1] James Baillie, 1906; William E. G. Millar, 1907; David Ferguson, 1908.

T. and V. Pratt Bursaries (*Any Faculty*).—The late Mr. Thomas Pratt, who resided at Castlevett, near Lanark, by his Trust Disposition and Settlement, dated 22nd December, 1877, directed his Trustees, as soon after his death as convenient for them, to set apart and invest in name of themselves and such other Trustees as they might deem suitable, a sum to yield an annual income of £40, for the purpose of establishing two Bursaries of £20 each, to be called the T. and V. Pratt Bursaries, to assist in maintaining and educating two students in the University of Glasgow or Edinburgh. The necessary funds have now been set aside and invested in name of Trustees for this purpose. The Bursaries are open to sons and daughters of working men residing in or belonging to the United Parishes of Wiston and Roberton, and the Parish of Lamington. His Majesty's Inspector of Schools for the district is to name the candidates found after examination to be best qualified and most deserving of the Bursaries, and the examination which, with the concurrence of the Trustees, he at present prescribes is the General Bursary Competition Examination in Arts at Glasgow University. The Bursaries are tenable for four years, or such shorter time as the Bursar may remain at the University, unless the Trustees are dissatisfied with the Bursar's conduct or diligence. When a vacancy occurs, applications should be lodged with the Trustees' Agents, Messrs. Fyfe, MacLean & Co., Writers, 115 St. Vincent Street, on or before 15th August. (Two Bursaries vacant.)

---

[1] Vacant through lapse of time.

RAINY BURSARIES (*Medicine*).—In 1872, Dr. Harry Rainy, Emeritus Professor of Medical Jurisprudence in this University, made over to the Senate the sum of £1,000 for the institution of two Bursaries in the Faculty of Medicine, and a further sum of £500 to be invested as a supplementary or augmentation fund. The interest of the Bursary Fund is to be divided annually between the two Bursars; and the interest of the supplementary fund is to be employed towards defraying the expenses of administration, and bringing up, when necessary, the annual salaries of the Bursars to £20 each, and increasing the supplementary fund. Should this fund accumulate to £1,000, one half of it is then to be added to the Bursary fund, the interest of which shall be divided as before between the two Bursars. If by this process of augmentation, which is to be repeated as often as the supplementary fund amounts to £1,000, the Bursary fund shall at length yield £60 per annum to each Bursar, the Senate may continue the same process, or constitute additional Bursaries on the principle explained above, the original Bursaries remaining of the value to which they have been raised by augmentation. The augmentation fund is not at any time to be reduced below £500.

The successful candidate may hold his Bursary for two years, namely, during his fourth and fifth years of study in the University of Glasgow. A vacancy occasioned by death, irregular attendance, or misconduct, is not to be filled up till the usual term at which the competition for that Bursary would have fallen due, and accumulations from this source are to be added to the supplementary fund.

A Rainy Bursary will be awarded in November, 1909, to the qualified candidate who, not being the holder of a bursary of equal or greater value, shall be found to have passed in the year 1909 in Anatomy and Physiology of the second Professional examination, and whose aggregate of marks in these subjects and in Chemistry, Botany and Zoology of the first Professional examination, is the highest.

Bursars—[1] William Howat, 1907; James T. Dick, 1908.

RAMSAY WALKER BURSARIES (*Arts*).—Two in number, founded in 1879, under the Trust Disposition and Settlement of Miss Ramsay Walker, Crosshill, who bequeathed £700, reduced by legacy duty to £630, for educating two students with a view to the ministry of the Established Church of Scotland. Preference to kindred of the founder, whom failing, to students of the name of Walker, whom failing, to natives of Glasgow, whom failing, the Bursaries will be thrown open to public competition. Candidates must be qualified by their previous education for entering the University. The Bursaries are each of the annual value of £15, and tenable for four years. (Two vacancies.)

---

[1] Vacant through lapse of time.

Bursars—[1]Archibald U. Millar, 1905; [1]William W. Anderson (1905), 1908.

ROSS BURSARY.—(See Hyndford and Ross, p. 376.)

JOHN ROSS, JUNIOR, BURSARY (*Theology*).—Founded in 1880 by Mrs. Ross, widow of Mr. John Ross, junior, merchant in Glasgow, in memory of her husband. Patrons—The Senate of the University. The Bursary Fund consists of the capital sum of £1,000, set aside by Mrs. Ross for that purpose, and the present annual value is £35. The Bursary is tenable for three years by a student of Divinity in the regular course of study for the degree of Bachelor of Divinity with a view of becoming a clergyman of the Established Church of Scotland. Candidates must be entering on the first session of their study in Theology in the University, and the award shall be determined by the result of the annual competitive examination for Bursaries in Theology. In cases of equality in the competition there is a preference to the student who may be thought to stand most in need of help to carry on his theological studies, or to one who is a native of Ayrshire. The second moiety of the third year's Burse shall not be paid to any Bursar unless and until he shall have passed all the examinations required for the degree of B.D. In the case of a vacancy occurring otherwise than by lapse of time, the Senate may appoint, with or without examination, a student of the same standing as the previous Bursar.

Bursar—George A. M. Dickson, 1908.

SANDERS BURSARY.—(See Boyd and Sanders Bursary, p. 350.)

(SIR WALTER) SCOTT BURSARIES (*Arts*).—The centenary of the birth of Sir Walter Scott was celebrated in Glasgow in 1871, and in conformity with a suggestion made by Lord Stanley (Earl of Derby), then Lord Rector of the University, the committee who had charge of the arrangements resolved to raise by public subscription a fund for the benefit of distinguished students, and to associate it with Scott's name. The amount subscribed was £3,500, and accordingly two Bursaries, along with the Scott Scholarship, were founded in 1874. The fund is administered by trustees, two of whom are elected by the Senatus, two by the Merchants' House, one by the Faculty of Physicians and Surgeons, one by the Faculty of Procurators, and one being an Assessor of the Council in the

---

[1] Vacant through lapse of time.

University Court, appointed by the four Assessors or a majority of them, in accordance with the provisions of Ordinance No. 91 of the Universities Commission (1889). The Bursaries are now four in number, each of the annual value of £25, and tenable for four years. They are open to free competition, under the same regulations as the competition Bursaries in the University. (One vacancy.)

Bursars—[1] Margaret E. Taylor, 1905; Robert Stevenson, 1907; Archibald N. M'Alpine, 1908.

SHEARER BURSARIES (*Any Faculty*).—Founded in the year 1887, by Archibald Shearer of Boag, who resided in Beith. By Deed of Mortification executed by Mr. Shearer dated 29th April, 1887, he conveyed his lands of Boag, in the parish of Kilbirnie, to trustees for the foundation and endowment of three Bursaries for the advancement of the higher education of the young men of his native parish of Dalry, in the county of Ayr. The Deed provides that the Bursaries shall be open to applicants between the ages of fourteen and twenty-four, who are the sons of parents or of a surviving parent *bona fide* resident for a period of not less than two years immediately preceding the date of application in the parish of Dalry, or to applicants who, for a period of not less than the last two years of their school curriculum, have received their education in the schools within the said parish, to enable the Bursars to pursue their education as students at the University in one or other of the Faculties. Students who have enjoyed a Bursary during their Arts course are eligible for a second Bursary in another Faculty. Applicants to undergo such examination as the trustees may from time to time appoint. Each Bursary to be one-third of free income from the lands of Boag, but not exceeding the annual sum of £30, and to be tenable for three years. Further information will be afforded by the Agents of the Trustees, Messrs. J. & J. M'Cosh, writers, Dalry. (No vacancy.)

SHIPWRIGHTS' COMPANY BURSARY.—The Fishmongers Company of London has placed the sum of £50 per annum at the disposal of the Educational Trust Fund Committee of the Shipwrights' Company for a period of three years that a Scholarship or Bursary may be given to a deserving student of Naval Architecture in this University. Appointment to the Bursary rests with the Educational Trust Fund Committee, and when a vacancy occurs the Senate is invited to nominate a promising and deserving student.

Bursar—[1] David L. C. Evans, 1906.

SIMSON BURSARY (*Arts or Divinity*).—This bursary, of the annual value of about £18, was founded in 1869 by James Simson. The bursar must be a native of Dunbar, and must be attending any Scottish University in the prospect of becoming a minister of the Church of Scotland or of going abroad as a missionary. It is tenable for one or more years, not exceeding three. Candidates must apply to the Session Clerk, Dunbar Parish Church.

---

[1] Vacant through lapse of time.

SMITH (CRUTHERLAND) BURSARY (*Any Faculty*).—In 1849 Dr. John Smith of Crutherland founded two bursaries, which were not restricted to any particular Faculty. Patrons—the Directors of the Incorporated Company of Stationers. Sons of members of the Company are preferred, then sons of persons connected with any of the trades included in their charter, whom failing, such other students as may be approved of by the patrons. The value of each was £9 per annum, and they were tenable for one or more years at the option of the patrons. Ordinance No. 77, issued on 15th February, 1895, provides that the two bursaries shall hereafter be conjoined into one, and that the bursary shall be tenable for four years. If a bursar in Arts graduate at the end of three years, he shall only retain his bursary during the fourth year of tenure if he shall engage in a course of study approved by the Senate in subjects included in the curriculum for Degrees in Arts or in Pure Science. If a bursar in Divinity graduate at the end of three years he shall only retain his bursary during the fourth year of tenure if he shall engage in a course of study in Divinity approved by the Senate. Applications to be made to Mr. William Brodie, 77 St. Vincent Street, Glasgow.

Bursar—John Walker, 1908.

STEVENSON OF DALRY BURSARIES (*Arts*).—The Rev. Robert Stevenson, D.D., minister of the Parish of Dalry, Ayrshire, who died on 11th September, 1890, by his Trust Disposition and Settlement dated 28th July, 1890, directed his Trustees to pay over to the University Court the sum of £2,000, free of legacy duty, for the foundation of two Bursaries in Arts. They are open for competition to students entering on the first or second session of attendance in the Faculty of Arts, who are prosecuting their studies with a view to the ministry of the Church of Scotland, with a preference in the first place to natives of the parish of Dalry in Ayrshire, and in the second place to natives of the parishes of Bannockburn or St. Ninians in Stirlingshire. The Bursaries, which are each of the annual value of £33, are tenable for four years.

Bursars—[1] George D. Henderson, 1905; John M. Garlick, 1908.

ANDREW AND BETHIA STEWART BURSARIES (*Arts and Law or Medicine*).—Miss Bethia Stewart, of Moss-side Park, Crossmyloof, who died on 10th April, 1902, directed her Trustees to give effect to the wishes of her brother Andrew Stewart, who predeceased her, by applying the income of the residue of her estate to the payment of bursaries for students in the University of Glasgow.

---

[1] Vacant through lapse of time.

The Bursaries in Arts are each of the annual value of £20, and are tenable for three years. Candidates must have qualified for the Arts Course either by gaining a Group Leaving Certificate of the Scotch Education Department or by passing the University Preliminary Examination in Arts, and must undergo a written examination, comprising an English Essay, and papers in *either* French *or* German *or* Italian, and also an oral examination in the foreign language selected by the candidate for the written competition.

The Bursaries in Law or Medicine are each of the annual value of £50, and are tenable for three years. Candidates must be Masters of Arts of the University of Glasgow, and must undergo a written examination, comprising an English Essay, and papers in not more than two of the following subjects, viz., Latin, Greek, French, German, Mathematics, and also an oral examination in the subjects selected by the candidate for the written competition.

Six Bursaries in Arts, and one in either Law or Medicine, will be open for competition in October, 1909. The names of candidates should be entered not later than 1st September, 1909, with Messrs. John Steuart and Gillies, Writers, 204 West George Street, Glasgow, from whom further information and Forms of Application may be obtained.

Bursars in Arts—Isabel Robertson, 1906; Nettie Gallie, 1906; Margaret W. Waddell, 1906; Janet I. Harvie, 1907; Janet E. Copland, 1907; Catherine M. Loudon, 1907; James Cameron Boyd, 1907; Mary C. M'Coll, 1908; James H. Adams, 1908; Florence R. Glen, 1908.

Bursar in Law—Robert Gibson, M.A., 1907.

Bursar in Medicine—Wallace M. Conley, M.A.

STEWART BURSARIES (*Arts*).—These Bursaries, three in number, founded in 1809 by the Rev. James Stewart, are in the gift of the Senate. They commence with the Humanity or the Greek Class, and may be held during the Gown Course. Value, £15 per annum each. The names Stewart and Simpson were preferred, but this preference was cancelled by Ordinance No. 57 of the Universities Commission (1889). In case of a vacancy, a student of the same standing is appointed. The Senate, acting under Section XIII. of the said Ordinance, have resolved to award one of the Stewart Bursaries in respect of exceptional distinction in English, to a student of the first year who, having passed the Arts Preliminary, has gained the highest marks in English in the Bursary Examination and has not obtained a bursary for general excellence.

Bursars—Thomasina Carmichael (English), 1907; James C. Hamilton, 1908; Rollo R. G. Sutherland, 1908.

Stillie Bursary in Music.—This Bursary was founded by Mrs. Thomas Stillie in 1885, the Trustees being the Executive Council of Queen Margaret College, and their successors in office. The Trustees were to apply the annual proceeds of the investment of £125 in providing one Bursary, to be granted yearly to a student of Music, as a reward for proficiency in Music, and an encouragement to further study. The Trustees were empowered to make such regulations as they should see fit from time to time for testing the merits of the candidates, and also for prescribing the age of candidates and the course of study to be pursued in connection with Queen Margaret College or otherwise, which the Trustees might desiderate as a condition of awarding the Bursary. The University Court, having taken over Queen Margaret College, are the successors in office of the Executive Council of Queen Margaret College in respect of the Stillie Bursary Fund, which in January, 1895, amounted to £160. The following regulations have been adopted by the Court:—1. The Bursary shall be awarded in connection with the practical Examinations in Music conducted in Glasgow by the Associated Board of the Royal Academy of Music and the Royal College of Music in the spring of each year. 2. The Bursary shall be awarded by the Senate on a report by the Examiners of the said Board. 3. Only candidates for the Advanced Grade Local Centre Examination shall be eligible, and the Bursary shall be awarded to the candidate examined in Glasgow who shall obtain the highest number of marks in that practical examination. 4. The Bursary shall not be awarded if the candidate with the highest number of marks has not obtained honours; and in that case the proceeds shall be added to the capital fund.

Bursar—Elizabeth B. Smith, 1908; Jennie R. Johnston and Camilla C. H. Barrett—equal, 1909.

Dr. Strang Bursaries (*Science*).—Mrs. Machen of Ferniecraig, Skelmorlie, who died on 15th October, 1894, left funds for the foundation of four Bursaries, each of the annual value of £20, to be instituted in connection with the University of Glasgow, in memory of her brother, the late Dr. John Strang, City Chamberlain of Glasgow from 1834 to 1863. The Trustees under their powers have meanwhile agreed that these Bursaries should be tenable by students of Engineering Science in the University of Glasgow. Each Bursary is tenable for three years. The Bursaries shall be awarded on the results of the Science Preliminary Examination, and no candidate shall be appointed to a Bursary unless he passes the whole preliminary examination. Each Bursar shall be required to attend a course qualifying him for graduation in Engineering Science on the side of Engineering.

The Bursaries shall be payable by equal moieties in the month of January and at the close of the winter session, but the second moiety of the second year's Burse shall not be paid until the student has passed the first Science Examination for B.Sc. in Engineering Science, except in special circumstances. A student holding another Bursary may, in the discretion of the Trustees, be also appointed to a Strang Bursary.

In each of the years in which two appointments fall to be made, the Trustees, in appointing to the second Bursary, will take into account, not only the results of the examination, but also, and specially, other circumstances (financial and otherwise) affecting the candidates.

Further particulars may be obtained from Professor Barr, D.Sc., Engineering Department, University of Glasgow, or from Messrs. Kerr & Barrie, Solicitors, 149 St. Vincent Street. (One vacancy.)

Bursars—[1] Walter J. T. White, 1906; [1] Robert Stewart, 1906; James G. Stevenson, 1907; Herbert H. Leys, 1907; Alexander Love, 1908; Charles W. Marshall, 1908.

STRUTHERS BURSARY.—(See Gilhagie and Struthers Bursary, p. 369.)

TAYLOR BURSARIES (*Any Faculty*).—Two in number, founded by Mr. James Taylor, writer in Glasgow, who by Trust Disposition and Settlement of date 30th June, 1857, bequeathed to the University the sum of £800 for Bursaries. After Mr. Taylor's death, the trustees found that the estate was not sufficient to pay the various legacies in full. They paid over to the University in January, 1868, the sum of £560, and in September, 1878, a further and final dividend of £80, making in all £640, the free proceeds of which are applied to the payment of the two Bursars. Present annual value to each holder is £10. The Senate are Patrons. The preference given to the names Tayler or Taylor, Ronald, Dunlop, Henderson, and M'Arthur, was cancelled by Ordinance No. 57 of the Universities Commission (1889).

Bursars—[1] George Taylor, 1905; Annie I. Henderson, 1906.

JAMES THOMSON PHILOSOPHICAL ENTRANCE BURSARY (*Arts, Phil.*).—Founded by subscription in 1878 in memory of James Thomson, M.A., a distinguished student of this University, who died in 1876 before the close of his theological curriculum. The Bursary consists of the proceeds of a sum of about £300 (about £11), and is tenable for two years. It is awarded biennially for the best examination in (*a*) Mental Philosophy and (*b*) English Literature alternately. The examination is open to all students of the first and second year who have not already attended the Logic, Moral Philosophy, or English Literature Class, and who have not attended a session in any other Scottish University. The Bursary is payable in four instalments, but the last instalment will not be paid till the

---

[1] Vacant through lapse of time.

Bursar has passed his examinations in Latin and Greek for the M.A. Degree in Glasgow University. The subjects of Examination in Mental Philosophy and English Literature respectively are the same as for the John Ferguson Jaffrey Bursary. (See page 377.)

The next examination will be held in October, 1910, the subject of examination being English Literature.

Bursar—Thomas Jack, 1908.

Walkinshaw Young Bursary (*Law*).—Founded in 1878 by Major Young, Dunmore, Kirn, who bequeathed to the University a sum of £500, free of legacy duty, for promoting any useful branch of Education which the Principal and Professors may think proper. Present annual value, £18.

The following regulations have been adopted :

1. The Bursary shall be tenable for two years, during which the holder shall give regular attendance as a public student in the Faculty of Law in the University, to the satisfaction of the Senate.

2. All persons who within two years previous to the time when an appointment to the Bursary is made, have, at an examination in Arts, for the Degree of B.L. passed in not fewer than two Arts subjects, or have passed in any two subjects for the Degree of M.A., shall be eligible as candidates, and the Senate shall appoint that one among the candidates who in their opinion is the most distinguished. A student who passes a qualifying Examination in the October of the session in which an appointment is made, shall be held eligible within this rule, but one who has passed an examination in the October two years preceding such an appointment, and has not passed any subsequent qualifying examination, shall not be eligible.

3. The Bursary shall not be tenable along with any other Bursary or Scholarship in the University.

The next appointment to this Bursary will be made in December, 1910. Applications, containing in each case a statement of any distinctions gained by the candidate, to be sent in to the Clerk of Senate on or before 1st December, 1910.

Bursar—John O. Taylor, 1908.

Walton Bursary (*Medicine*).—This Bursary was founded in 1763 by Dr. William Walton, Huntingdon, for a student in Medicine. The Earl of Sandwich has the right of appointing to the Bursary one of two students nominated by the Senate. Preference is given to "Students of the English Nation." The Bursary may be held for four years. Value about £35 per annum.

Bursar—[1] Morris W. Broudy, 1905.

Andrew Weir Bursary (*Medicine*).—Founded in 1884, in terms of a Bequest by Mrs. Janet Maxwell or Weir, relict of Andrew Weir, feuar in Paisley. Mrs. Weir bequeathed the sum of £500 to the University, and directed the annual income (about £18) to be devoted to maintaining a Bursary in connection with the Medical School, in such a manner as the Senate may appoint. The Bursary is in memory of a son of the founder, Andrew Weir, a medical student of Glasgow University, who held subsequently the post of Resident Physician in the Paisley Infirmary, and in the discharge of his duties there contracted a fever, of which he died. The Bursary is awarded annually at the beginning of the Winter Session, in accordance with the results of the second and third professional examinations, account being taken of the marks gained by all students who have passed both of these examinations within a period not exceeding thirteen months, reckoning backward from the date of the professional examinations in October of each year. During the tenure of this Bursary, which may be held along with another Bursary, the holder shall be bound to give regular attendance on the classes of the medical curriculum in the University.

Bursar—William M'Adam, M.A., B.Sc., 1908.

William Whyte Bursaries (*Arts*, *Law*, *or Medicine*).—Four in number, founded in 1893 in memory of Mr. William Whyte, at one time Preceptor of Hutchesons' Hospital, in accordance with instructions contained in the Trust Disposition and Settlement of his daughter, Mrs. Isabella Whyte or Bamber, who died in 1882. The Trustees executed a Deed of Mortification transferring £2,000, less legacy duty, to Hutchesons' Hospital. The Bursaries are each of the annual value of £25, and are tenable for four sessions in the Faculties of Arts, Law, or Medicine. They are open to competition by boys who have attended and completed the curriculum in the Secondary Department of Hutchesons' Grammar School. Candidates must give in their names to Messrs. Hill & Hoggan on or before 15th August in each year, to be sent to the Clerk of Senate, that they may be entered for the University Entrance Bursary Competition. One Bursary will be awarded every year to the candidate highest in the order of merit who shall not have gained and elected to hold a Bursary of equal or higher value at the general competition, provided his attainments have reached a standard satisfactory to the Patrons of Hutchesons' Hospital.

---

[1] Vacant through lapse of time.

The sum of £408 15s. 8d at the credit of the Fund at 31st December, 1892, is to be allowed to accumulate until that sum, with such additions as may accrue from any portion of the income that may not be required for the purposes aforesaid, shall amount to a sum which will produce a return of £20 yearly. There shall then be instituted a Bursary of that value, to be competed for by girls educated in Hutchesons' Girls' School, which Bursary shall be tenable at the University of Glasgow.

Bursars—[1]James D. Walker, 1905; Peter A. C. Milne, 1906; Ronald Stewart, 1907; Charles G. McDowall, 1908.

King William's Bursaries (*Two in Arts and Two in Theology*).—These Bursaries, founded by his Majesty King William III. in 1695, were formerly six in number and known as the Exchequer Bursaries. They were tenable for six years—the first in Logic, the second in Moral Philosophy, the third in Natural Philosophy, and the last three in Divinity. The bursars in Philosophy received £10 per annum each, and those in Divinity £13 6s. 8d. The Foundation was regulated by Act of Parliament, 1758. By Ordinance No. 94 the Universities Commission (1889) altered the conditions and directions affecting the Foundation, making two Bursaries in the Faculty of Arts, each of the annual value of £15, and two in the Faculty of Divinity each of the annual value of £20. Each of the Bursaries is tenable for three years, and no longer. The Bursaries in Arts are open by competition to all students entering on their first year of attendance on a course of study for graduation in Arts. The Bursaries in Divinity are open by competition to all students who are Masters of Arts, or who have passed all the examinations necessary for graduation in Arts, and who are entering on their first year of attendance on a course of study for graduation in Divinity. In other respects the provisions of University Court Ordinance No. XXVII. apply to the Bursaries on this foundation.

Bursars in Arts—[1] Andrew D. Gibb, 1906; [1] Jeannie Sutherland, 1906.

Bursars in Divinity—Charles W. Farish, 1907; Alexander Macdonald, 1907.

Williams Bursaries (*Arts and Theology*).—The Rev. Dr. Daniel Williams, London, who died in 1716, founded bursaries tenable at the University of Glasgow by youths of South Britain, who shall be designed for the Ministry. The appointment rests with Dr. Williams's Trustees, and is made, subject to certain conditions, upon the result of a competitive examination held in London in July,

---

[1] Vacant through lapse of time.

Application for admission to the Examination must be made before the first day of June. Every candidate must satisfy the Trustees that he intends to enter the Protestant Dissenting Ministry. The Bursaries, £40 each per annum, are tenable for three years, but may, in the discretion of the Trustees, be renewed for a fourth year, either to enable the student to take Honours, or to enable him, after graduating, to enter the Divinity Hall. If the Bursary be continued after graduation and held in the Divinity Hall, the amount is raised to £45. Bursars must enter as public students of the University, and must therefore satisfy the requirements as to the Preliminary Examination in Arts, either before the examination in London, or in the next following Preliminary Examination. Prospectus of the Examination and other information may be obtained from the Secretary of the Trust—Francis H. Jones, B.A., Dr. Williams's Library, Gordon Square, London, W.C. (One appointment in 1908.)

Bursars—[1] John M. Gardner, 1906; [1] John W. Saunders, 1906; [1] George Matthews (two years), 1907; Sydney J. Haggis, 1908.

WILSONE BURSARY.—(See Boyd and Wilson, p. 350.)

GEORGE YOUNG BURSARY (*Science*).—By Trust Disposition and Settlement of date 30th August, 1892, Mrs. Catherine M'Farlane or Young, who died at Helensburgh on 4th November, 1893, directed her Trustees to make over to the Senate of the University of Glasgow the sum of £1,000, free of legacy duty, for the purpose of founding, in memory of her husband and son, a Bursary in connection with the class of Civil Engineering, on such terms and conditions as the Senate should from time to time fix. The Senate have determined that the Bursary shall, upon the recommendation of the Faculty of Science, be awarded to the candidate who has the best record in his First Science Examination. Students who have passed the whole of that examination or at least in Mathematics and Natural Philosophy with or without the higher branches specified in Ordinance No. 23, Section IX., Subsections 1 and 2, may offer themselves as candidates, but students who have completed the qualifying attendance in Engineering shall not be eligible. The Bursary is £38 of value, and is tenable for one year, during which the Bursar must attend a course of Laboratory Practice in Engineering and either a course (or half course) of Engineering Lectures or a course of Engineering Drawing. Appointment in the month of October.

Bursar—Eric Davies, 1908.

---

[1] Vacant through lapse of time.

MAJOR YOUNG'S FUND BURSARIES (*Law*).—Two in number, founded in 1890 by the Trustees of the late Major Young, founder of the Walkinshaw Young Bursary. The amount of the Bursary Fund is about £1,312, and each of the Bursars receives one half of the free annual income thereof (about £26). In accordance with Major Young's desire, the Bursaries are open only to applicants whose pecuniary circumstances are such as in the judgment of the Senate render it desirable that they should have assistance in prosecuting their studies at the University, preference being given, *cæteris paribus*, to natives of Argyllshire or Renfrewshire. One of the Bursaries is tenable for six years, and is awarded by competitive examination to a student of the first year who intends to study for a Degree in Law. The Bursar is required during his tenure of the Bursary to attend such classes and to pass such examinations for a Degree in Law as shall be held by the Senate to correspond to the successive stages of his course and he must attend a class or classes in the Faculty of Law during at least the last two years of his tenure of the Bursary. The other Bursary is tenable for two years, and is awarded by competitive examination upon subjects prescribed by the Senate. Candidates must have expressed their intention of attending the classes of Scots Law and Conveyancing, and the Bursar must attend these classes in separate sessions during his tenure of the Bursary. Either of these Bursaries may be held with any other Bursary, Scholarship, or Prize in the University, but both shall not be held together by one Bursar. The subjects of examination are those prescribed for the General Bursary competition.

Bursars—Robert Gibson, 1904; Peter A. C. Milne, 1908.

2. *EXHIBITIONS, FELLOWSHIPS, AND SCHOLARSHIPS.*

ALPHABETICALLY ARRANGED.

N.B.—In cases in which a Scholarship or Fellowship falls vacant otherwise than by lapse of time, the Senate may, except where it is inconsistent with the deed of foundation, hold a competition, and make an appointment for the remainder of the period for which such Fellowship or Scholarship may be held. At the next ordinary competition no student shall be excluded from the competition by reason of his having previously been appointed to fill a vacancy for less than the full period; but in no case shall any student hold such Scholarship or Fellowship for longer than the full period fixed in the regulations applicable to such foundation.

FOUNDATION.	No. of Scholarships, &c.	TENABLE BY	Approximate Annual Value of each.
Barbour, - - -	1	Masters of Arts of Glasgow Univ.,	£200
Black Theological, -	1	Masters of Arts of Scot. Univ.,	£147
Breadalbane, - - -	2	M.A. or B.Sc., Eng., Glas. Univ.,	£56
Clark, George A., - -	4	3 M.A., 1 M.A. or B.Sc., do.	£170
Clark, John (Mile-end),	12	Arts Students at close of Curric.,	£50
Coats Memorial, -	1	Medical Graduates of Glas. Univ.,	£85
Donaldson, Alexander,	1	Candidates for B.Sc. (Chemistry),	£44
Donaldson, Robert, -	2	Bachelors of Science of Gl. Univ.,	£66
Eglinton, - - - - -	2	Masters of Arts of do.	£65
Euing, William, - -	3	Do. do.	£100
1851 Exhibition Science,	2	Science Students, - - - -	£150
Ferguson, - - - - -	6	Masters of Arts of Scot. Univ.,	£80
Foulis Memorial, - -	1	Medical Graduates or Licentiates,	£50
Grocers Company, -	2	Research Stud. in Public Health,	£300
Houldsworth, - - -	1	Research Students in Nat. Phil.,	£150
Lloyd's Register, - -	3	Students of Naval Architecture,	£50
Luke, - - - - - -	1	Masters of Arts of Glas. Univ.,	£95
MacCunn, - - - - -	4	Medical Graduates of Scot. Univ.,	£100
Mackay Smith, - - -	2	Students in Nat. Phil. and Chem.,	£48
Mackinnon, - - - -	1	(See page 435),	£60
Metcalfe, - - - - -	1	Masters of Arts of Glas. Univ.,	£120
Mining, - - - - -	2	Graduates in Science, - -	£50
Newlands, - - - -	4	Snell Exhibitioners, - - -	£80
Reid-Stewart, - - -	1	Masters of Arts of Glas. Univ.,	£60
Sandford, - - - - -	1	Greek Students, do.	£20
Scott (Sir Walter), -	1	Masters of Arts of do.	£80
Shaw Philosophical, -	1	Do. Scot. Univ.,	£160
Snell (at Oxford), - -	5	Masters of Arts, etc., Glas. Univ.,	£80
Thomson Experimental	3	Students of Natural Philosophy,	£20
Watt, James, - - -	1	Bachelors of Science, - - -	£42

BARBOUR SCHOLARSHIP (*Anatomy or Physiology*). The late Dr. John Borthwick Barbour bequeathed the residue of his personal estate, subject to the life-rent of his widow, to the University of Glasgow for the foundation of a Scholarship for the promotion of original research in Anatomy or Physiology. The Founder directed that the free annual income (about £200) should be paid to such member of the University as should be of the standing of Master of Arts and duly declared entitled to the same after competitive examination. The following regulations made by the Senate were approved by the University Court on 10th December, 1908:—

1. The usual period of tenure of the Barbour Scholarship shall be two years, but a scholar may be reappointed for a further period provided that no scholar shall hold the scholarship for more than four years.

2. The scholarship shall be awarded alternately in the subjects of Anatomy and of Physiology, except in the case of no eligible candidate presenting himself in one of the subjects; in this case the scholarship may be awarded in the other subject.

3. The candidate shall be expected to produce evidence of his ability to undertake original research.

4. The competitive examination shall consist of

(*a*) The examination of any published records of original investigation already carried out by the candidates.

(*b*) The examination of any unpublished records of original investigations and of any preparations made in the course of such investigations.

(*c*) A practical examination upon the subject—the examination to be conducted by the Professor of the subject in which the scholarship is to be awarded, along with such assessors as the Senate may appoint.

5. The scholar shall devote himself to Research under the supervision of the Professor of the subject for which the scholarship has been awarded, and he may, with the approval of the Senate and the Professor, take part in the teaching of the Department during three months in each year of tenure.

6. A report shall be submitted each year by the Professor under whose supervision the scholar is working regarding his work, whether research or teaching, and it shall be in the power of the Senate to terminate the tenure of the scholarship if this report is unsatisfactory.

Present Scholar (in Physiology)—Janie Hamilton M'Ilroy, M.A., B.Sc., M.B., Ch.B., 1909.

Black Theological Fellowship.—This fellowship, which is ow of the annual value of £147, was instituted under the Will of he late Mrs. Janet Black (who died in 1876) in memory of her usband, the Rev. William Black, D.D., minister of the Barony Parish of Glasgow. Candidates must be members of the Estab-shed Church of Scotland.

The following regulations have been adopted by the Senate with the sanction of the University Court :—

1. The Black Theological Fellowship shall be tenable for two years.

2. It shall be awarded by competition open to Masters of Arts from any of the Universities of Scotland who shall complete the ordinary curriculum of Theological study in the University of Glasgow in the academical year in which the examination is held, or who shall have completed that curriculum in any of the three preceding years.

3. At the competition in April, 1908, and thereafter in April at intervals of four years (1912), the examination shall be in Divinity (Biblical and Systematic Theology), Church History, and Biblical Criticism ; and at the competition in Autumn, 1910, and thereafter in Autumn at intervals of four years, the examination shall be in Hebrew (with one cognate language), New Testament Exegesis, and Apologetics.

4. The Fellowship shall be awarded by the Theological Faculty only when the Examiners shall report that the Candidate has attained a sufficient standard of merit.

5. The holder of the Fellowship shall, during the tenure of it, perform such duties—whether in the form of giving a short course of lectures, or of undertaking tutorial work, or otherwise—within the University, as may be assigned to him by the Faculty of Theology with the sanction of the Senate.

6. No Candidate who has gained the Fellowship at one examination shall be at liberty to compete for it a second time.

7. The Fellowship shall not be held in conjunction with any other Theological Fellowship or Scholarship or Prize falling to be awarded at the same time, or subsequently during its tenure.

Subject to these regulations an appointment to the Fellowship will be made in the Autumn of 1910. In addition to the subjects prescribed for the first department of the examination for the Degree of B.D., the examination will extend to the following :—

Arabic : Nallino's Chrestomathia Qorani, pp. 1—52, translation and grammar ; or alternatively *Syriac* : (*a*) Extracts from Barhebraeus in Rödiger's Chrestomathia Syriaca, Nos. iv.—xii. ; (*b*) Vitae Prophetarum, as in Nestle's Syriac Grammar—translation and grammar.

New Testament Exegesis : The Epistle of Jude, with Introduction.

Apologetics : English Deism in the Eighteenth Century.

Present Fellow—Andrew C. Baird, B.Sc., B.D., April, 1908.

Breadalbane Scholarships.—The second Marquis of Breadalbane, an alumnus, and afterwards Rector of the University, gave from the first year of his Rectorship (1840 41), and during his lifetime, the sum of £100 annually, which was for some years distributed in prizes among certain classes, and afterwards appropriated to the establishment of two Scholarships, the one in

Mathematical and Physical Science, and the other in Mechanical Philosophy, Chemistry, and those branches of Natural History that are connected with the Arts and Manufactures.

The Marquis died in 1862, and his Deed of Settlement made provision for the "annual payment, in all time coming, to the University of Glasgow, of the sum of £100, to be paid yearly to deserving students in this college, as scholarships or Bursaries, to be called the 'Breadalbane Scholarships, in such manner as shall be fixed by the Senatus Academicus of the said University."

The following regulations have been approved by the Senate:—

The number of Scholarships shall be two, of £50 each per annum, for the encouragement of pure and applied Science.

The scholars shall be chosen, after competitive examination in Mathematics and Natural Philosophy, from among candidates who shall have taken the Degree of Master of Arts, or the Degree of Bachelor of Science in the Department of Engineering Science, at the University of Glasgow, within a period of not more than three years preceding the examination; provided always that students graduating at the supplementary graduation in November of any year, shall, for all purposes, be held to have graduated at the ordinary graduation in April immediately preceding.

Each scholar shall pursue such course of scientific study during the tenure of his Scholarship as the Senate shall in each case prescribe, and shall hold his Scholarship for three years; provided that at the end of the first and second years he give the Senate such evidence, by examination or otherwise, as the Senate shall deem sufficient, of having successfully prosecuted the prescribed course of study. The annual value of each Scholarship is now £56.

Scholars David B. Meek, 1907; James Paul, 1907.

CARNEGIE FELLOWSHIPS AND SCHOLARSHIPS.—See pp. 181–188.

GEORGE A. CLARK BURSARIES OR SCHOLARSHIPS.—By the Will of he late Mr. George A. Clark, manufacturer, Paisley, a sum of 20,000 was bequeathed in 1872 to this University for the creation four Bursaries, tenable each for four years. The present annual alue of each is £170. The following are the regulations:—

1. One of these Bursaries shall be competed for annually, at or mediately after the October examination for Degrees in Arts or ience.

2. The four Bursaries are assigned respectively to four of the oups of Honours enumerated in Ordinance No. 11, Section xi., the Universities Commission (1889), viz.:—(1) Classics; (2) Mental ilosophy; (3) Mathematics and Natural Philosophy; (4) English anguage, Literature, and British History).

For the Classics Bursary or Scholarship either Masters of Arts this University who have taken the Degree of M.A. with

Honours, or students presenting themselves for the final examination for the M.A. Degree with Honours in Classics, may be candidates; for the Mental Philosophy Bursary or Scholarship, either Masters of Arts of this University who have taken the Degree of M.A. with Honours, or students presenting themselves for the final examination for the M.A. Degree with Honours in Mental Philosophy, may be candidates; for the Bursary or Scholarship in Mathematics and Natural Philosophy either Masters of Arts of this University who have taken the Degree of M.A. with Honours, or students presenting themselves for the final examination for the M.A. Degree with Honours in Mathematics and Natural Philosophy, or Bachelors of Science of this University who have taken the Degree of B.Sc. in Pure Science, or students presenting themselves for the final examination for the B.Sc. Degree in Pure Science in the subjects of Mathematics and Natural Philosophy, may be candidates; and for the Bursary or Scholarship in English either Masters of Arts of this University who have taken the Degree of M.A. with Honours, or students presenting themselves for the final examination for the M.A. Degree with Honours in English, may be candidates.

But no student shall be eligible for the examination after the expiration of more than eight winter sessions from the time of his first entering a class qualifying for the M.A. Degree or the B.Sc. Degree.

3. The successful candidate shall undertake, during his tenure of the Bursary, to give such assistance in the teaching work of the University, and to follow such a course of study in the University, as the Senate may determine.

4. The subjects of examination each year shall be those which constitute the examination for Honours in one of the above-named Groups (the Group selected each year for examination to be publicly announced). The Senate reserve the right to withhold the Scholarship, should none of the Competitors reach the standard of attainment required of graduates in Arts with highest honours.

5. In the event of the examiners reporting in any year that no candidate has done sufficiently well in the subjects of that year to deserve the Scholarship, no appointment shall be made in that year; but it shall be in the power of the Senate to hold an examination for the same Scholarship, and in the same subjects, in the following year; provided that in that case the Scholarship shall be held for three years only and not for four, the surplus revenue being added to the capital of the fund. Should the same thing occur again, it shall be in the power of the Senate to appoint a Scholar for two years only, or for one year only, the examination in each case being in the same subjects as when the Scholarship was first competed for. In the same manner, in the event of a vacancy occurring in the tenure of any of the Scholarships otherwise than by lapse of time

the Senate may make an appointment for the remainder of the term for which the Scholarship might have been held by the student vacating it, and after examination in the same subjects as those for proficiency in which the Scholar was originally appointed; but in no case shall the regular rotation of subjects as above provided for be disturbed. In the competition for Scholarships to be held for less than four years, no student shall be admitted to examination who would not be eligible, as above arranged, for a Scholarship to be held for four years. In the event of a candidate being appointed to a vacancy to be filled for less than four years, and being still eligible, under the usual regulations as above, to compete for the said Scholarship on the occasion of the next regular vacancy, he shall be qualified to compete just as if he had not previously held the Scholarship, but in no case shall any student be permitted to hold the Scholarship for more than four years in all.

6. It shall not be competent for the holders of these Bursaries to hold any other Bursary or Scholarship in this University.

7. It shall be in the power of the Senate to deprive any Bursar of his Bursary, in the event of his not complying, to their satisfaction, with any of the above regulations.

8. The Examiners shall be the same as the Examiners for the Degree of M.A. with Honours in each of the several departments and for the Degree of B.Sc.

One of these Bursaries or Scholarships will be competed for, subject to the foregoing regulations, in October, 1909. It will be tenable for four years, and the examination will be in the first of the four groups above enumerated, viz., Classics.

Candidates are requested to give in their names to the Assistant Clerk (Matriculation Office), not later than 3rd September.

Bursars—[1] William Manson, M.A., 1905 (Classics); Archibald A. Bowman, M.A., 1906 (Mental Philosophy); John M'Whan, M.A., 1907 (Math. and Nat. Phil.); William D. Taylor, 1908 (English).

JOHN CLARK (MILE-END) SCHOLARSHIPS.—By the Deed of Constitution regulating the John Clark Bursaries (see page 354), the Founder, Mr. John Clark, also instituted Scholarships of £50 annual value, open for competition to all Protestant students of good moral character, sons or daughters of Protestant parents, and who have completed their curriculum in Arts in Glasgow University. The Scholarships are to be awarded to the candidates who stand highest at written examinations in the branches of learning appointed by the trustees, and are tenable for four years, subject to the condition that the Scholars give their undivided time and attention to the prosecution of their studies with a view to any of the learned professions, or, on approval of the trustees, any other profession or business they may prefer. The trustees have resolved that they will not, in ordinary circumstances, appoint to a Scholarship any one who holds a Scholarship of equal or greater value, and that no student shall be eligible for the examination after the expiry of more than eight winter sessions from the time of his first entering a qualifying class. Three Scholarships are offered for competition in October, 1909 (each tenable for four years), one in the Group of Classics, one in the Group of Mental Philosophy, and one in the Group of Mathematics and Natural Philosophy. The examination will be on the subjects prescribed for the Degree of M.A. with Honours in the respective Groups.

---

[1] Vacant through lapse of time.

Names of candidates to be given in to the Assistant Clerk (Matriculation Office), and also to Mr. Kidston, 50 West Regent Street, Glasgow, on or before the 3rd September.

Scholars—[1] Isabel M. Milligan, 1905 (English); [1] Annie M. Macgregor, 1905 (Modern Languages); [1] Margaret T. Robertson, 1905 (History); James Cunnison, 1906 (Economic Science); William M. Ogilvy, 1906 (Classics); Harold C. Rowse, 1906 (Mental Philosophy); Margaret B. Moir, 1907 (Math. and Nat. Phil.); Samuel F. Hunter, 1907 (Semitic Languages); Margaret M. Gray, 1907 (English); Isabella M. Ross, 1908 (Modern Languages); David N. Strathie, 1908 (History); William Kennedy, 1908 (Economic Science).

JOSEPH COATS MEMORIAL SCHOLARSHIP.—Founded in 1900 by the friends of the late Professor Coats, as a memorial of his distinguished services to Pathological Science, and in recognition of the ability and enthusiasm which he devoted to advance the teaching of the subject in Glasgow. The Scholarship is for the encouragement of original research in Pathology, is awarded biennially, and is tenable for one year. The Committee of subscribers paid over to the University Court £1,200, to the free proceeds of which for the two preceding years the Scholar is entitled during his year of tenure. Candidates must be graduates in Medicine in the University of Glasgow of not more than three years standing. The Scholarship will be awarded by the Senate on the results of a practical examination in Pathology, conducted by the Professor of Pathology with the assistance of two other members of the Faculty of Medicine to be appointed by the Senate in the beginning of October of every second year. The successful candidate must, for nine months following the award, prosecute research in Pathology with the Pathological Institute at the Western Infirmary, or in a Laboratory elsewhere approved of by the Faculty of Medicine, and shall not engage in Medical or Surgical practice during that period. The next appointment will be made in the beginning of session 1909-10.

Scholar—George H. Wilson, M.B., Ch.B., 1907.

---

[1] Vacant through lapse of time.

ALEXANDER DONALDSON SCHOLARSHIP OR BURSARY.—Founded in 1881 by Will of the late Mr. Alexander Donaldson, iron merchant in Glasgow, who bequeathed to the Senatus of Glasgow University £1,000, to be administered by them as patrons for the endowment of a Scholarship or Bursary, at their discretion, in connection with the said University.

The following regulations were adopted by the Senate on 1st May, 1884:—

1. The Scholarship shall be awarded to the candidate who, presenting himself for the first examination for the Degree of B.Sc. held in the month of April, shall stand highest in Chemistry.

2. The Scholarship shall be tenable for two years.

3. The second moiety of the second year's stipend shall be paid only after the Scholar has passed all the examinations for the Degree of B.Sc.

These regulations apply to students proceeding to the Degree of B.Sc. under the new regulations for that Degree.

The next appointment will be made after the B.Sc. examination in April, 1910, and the annual value will be £44.

Scholar—Robert Gibson, 1908.

ROBERT DONALDSON SCHOLARSHIPS.—Founded in 1887 by the trustees of the late Mr. Robert Donaldson, iron merchant, Glasgow, who left £2,000 to the Senate for two Scholarships for such scientific purposes as the trustees should approve. The following tentative scheme has been approved by the trustees:—

1. The income of the fund shall be devoted for two years alternately to Scholarships in Chemistry and Biology.

2. Each Scholarship shall be tenable for two years.

3. Students who have taken the Degree of B.Sc. in Glasgow University shall be eligible.

4. The appointment shall be made by the Senate on a report as to the merits of the candidate or candidates by the Professor of the subject.

5. The scholar appointed shall devote himself for two years in this University, or for one year in this University and the other in such place as the Senate may approve, to research in the subject in which he has obtained the Scholarship. The holder of the Scholarship in Biology shall have the option of selecting Zoology or Botany as the subject of research.

6. The Senate are not bound to make an appointment unless the candidate is in their opinion qualified.

The appointment in November, 1910, will be in Biology, and the annual value will be £66.

Scholar—Elizabeth F. Stevenson, M.A., B.Sc., 1908.

EGLINTON FELLOWSHIPS.—On the death of the Earl of Eglinton, formerly Rector of the University of Glasgow, a committee was formed to collect subscriptions for the purpose of commemorating in a suitable manner his virtues and public services; and, subscriptions having been received to the amount of £7,000, it was resolved by the subscribers, in 1862, to set apart £4,500 out of this sum as a Scholarship or Fellowship Fund in the University of Glasgow.

By the Trust Deed of date November 8th, 1865, the net yearly produce of the said sum (after deducting expenses) is to be appropriated to the support of one or more Fellowships, not exceeding three, to be competed for by the alumni of the College of Glasgow, and to be held for a period not exceeding four years, upon the following conditions, viz.: First,—The number of Fellowships, and the period during which the same are to be held, shall from time to time be fixed by the Senatus Academicus of the said University. Secondly,—The competition for the Fellowships shall be open only to deserving students who shall have taken the Degree of Master of Arts in that University at the term preceding the competition, and the Fellowships shall be awarded by the Senatus Academicus of the University to those students who have shown themselves in a public competition to have acquired the greatest amount of knowledge and proficiency in the branches of study embraced in the curriculum of Arts, and such branches of Natural Science as the Senate shall, from time to time, require. And, Thirdly,—The Examination for the Fellowships shall be under the direction of the Senatus Academicus of the University, who shall fix the subjects of examination, and the relative value of each subject in the competition, and appoint any of their own number, or other fit persons, to be Examinators, and make such regulations with relation to the said Fellowships, and the competition and examination therefor, as from time to time they may think fit.

The following are the regulations of the Eglinton Fellowships:—

1. The number of the Eglinton Fellowships shall be two (of about £65 per annum each), tenable for three years, subject to the approval of the Senate at the end of the first and second year.

2. The competition for the Fellowship shall be open only to deserving students who shall have taken the Degree of Master of Arts in the University of Glasgow, at the term preceding the competition.[1]

3. One of the Fellowships shall be open to competition in October, 1866, and thereafter triennially (1911); and the other in October, 1867, and thereafter triennially (1909).

4. The successful candidate shall undertake, during his tenure of the Fellowship, to follow such a course of study in the University, or to give such assistance in the teaching work of the University, as the Senate may determine.

---

[1] *i.e.* Either at the ordinary graduation in April or at the supplementary graduation in November.

5. The Examination for the Eglinton Fellowship to be competed for in October, 1890, and thereafter sexennially (1914), shall be in Classics; and the Examination for the Eglinton Fellowship to be competed for in 1893, and thereafter sexennially (1911), shall be in Mental Philosophy.

The subjects of examination in Classics and Mental Philosophy respectively shall be the same as those for the Degree of Master of Arts with Honours.

6. The Examination for the Eglinton Fellowship to be competed for in October, 1897, and thereafter sexennially (1909), shall be in Mathematics and Natural Philosophy; and the Examination for the Eglinton Fellowship to be competed for in October, 1900, and thereafter sexennially (1912), shall be in English (Language, Literature, and British History).

The subjects of examination in Mathematics and Natural Philosophy and in English respectively shall be the same as those for the Degree of Master of Arts with Honours.

7. The Eglinton Fellowship shall not be held along with the Snell Scholarship, or Breadalbane Scholarship, and the holder of the Luke Fellowship or of the Metcalfe Fellowship shall not be admitted to compete for the Eglinton Fellowship.

The next ordinary competition will take place in October, 1909, the subject of examination being Mathematics and Natural Philosophy.

Fellows—Octavia J. R. Bennett, M.A., and James M'Arthur, M.A., 1906 (English); David Millar, 1908 (Classics).

WILLIAM EUING FELLOWSHIPS.—Founded in 1874 by Mr. William Euing, insurance broker, Glasgow, who by his Will bequeathed to the University, along with a library of rare and valuable books, the sum of £6,000 for the endowment of three Fellowships, each of the value of £80 per annum, and tenable for not more than five years. The Fellowships are open only to deserving students who have completed the regular curriculum in Arts, and taken the Degree of M.A. at this University, and are awarded after competition in the subjects of the Arts curriculum. The Fellows are required to reside in Glasgow for at least nine months in the year, and "to open private classes of limited numbers, for giving instruction to, and aiding students of the University—more especially during the vacation, or such part thereof as may be found expedient—in such studies as may be auxiliary to, or illustrative of, the course of lectures which such students may have attended, or be desirous of attending, and also to carry out the same purpose by a systematic course of private tuition."

One Fellowship is attached to the department of Classics, one to the department of Mathematics and Natural Philosophy, and one to the department of Mental Philosophy, including Logic, Moral Philosophy, and English Literature.

The Senate have issued the following regulations for the competition for these Fellowships:—

1. In the department of Classics there shall be one Fellowship competed for in October, 1875, and thereafter at intervals of four years (1911), the period for which the Classical Fellowship shall be ordinarily tenable.

2. In the department of Mental Philosophy one Fellowship shall be competed for in October, 1876, and thereafter at intervals of three years (1909), the period for which the Fellowship in the department of Mental Philosophy shall be ordinarily tenable.

3. In the department of Mathematics and Natural Philosophy one Fellowship shall be competed for in October, 1875, and a Fellow appointed for two years; the Mathematical Fellowship becoming vacant in October, 1877, shall be filled up for a period of three years, the period for which the Fellowship in this department shall be ordinarily held.

In the event of a candidate being appointed to a vacancy to be filled for less than four years in the department of Classics, or for less than three years in the department of Mental Philosophy, or of Mathematics and Natural Philosophy, and being still eligible, under the usual regulations as above, to compete for the said Fellowship on the occasion of the next regular vacancy, he shall be qualified to compete just as if he had not previously held the Fellowship, but in no case shall any student be permitted to hold the Fellowship for more than four years in all, or three years in all, respectively.

Fellows—[1] Robert A. C. Macmillan, M.A., 1906 (Mental Philosophy); [2] John Jackson, 1907 (Math. and Nat. Phil.); David A. Shepherd, 1907 (Classics).

EXHIBITION (1851) SCIENCE RESEARCH SCHOLARSHIPS.—Her Majesty's Commissioners for the International Exhibition of 1851 have instituted Science Scholarships, each of the annual value of £150, and tenable for two years, subject to the scholar's first year's work being deemed satisfactory by the Scientific Committee of the Commissioners. The nomination to a Scholarship has been placed at the disposal of this University in each year since 1891, and it is anticipated that similar arrangements will be made in future years.

Candidates must be British subjects, and must have been students of Science in some approved institution or institutions for a period of three years, at least the third year of the period having been spent in this University. Capacity for original research tending to advance Science or its applications is required as the main qualification. The Scholarships may be held at any University in England or abroad, or in some other institution approved of by the Commissioners; and every scholar will, in the absence of special circumstances, be required to proceed to an institution other than that by which he is nominated. He must devote himself to some particular scientific work in connection with those branches of Science, such as Physics, Mechanics, and Chemistry, the extension of which is especially important to our national industries. A sum of £25 is reserved from the fourth half-yearly instalment, and paid by the Commissioners on receipt from the Scholar, after the expiration of his Scholarship term, of a satisfactory report of his study and research during the term.

---

[1] Vacant through lapse of time.

[2] Vacant through resignation.

When a nomination falls to be made in any year, due notice will be given to enable candidates to lodge their applications with the Clerk of Senate before the middle of March. Every application must be accompanied by a statement of the scientific study (including original research) in which the candidate has been engaged, and of the work to which he proposes to devote himself if appointed to the Scholarship.

Scholars—David Thomson, M.A., 1907; Andrew M'Millan, M.A., B.Sc., 1908.

Ferguson Scholarships.—With a view to the encouragement of the higher learning in Scotland, the trustees of the late Mr. Ferguson, of Cairnbrock, out of his legacy of £50,000 for educational and other purposes, instituted in 1860 six Scholarships, each of the value of £80 per annum, to be held for two years, and to be called "The Ferguson Scholarships."

The examination of candidates for three of these Scholarships will be held in Glasgow, on Tuesday, 21st September next, and two following days. One of the Scholarships will be awarded for the greatest proficiency in Classics; one for the greatest proficiency in Mathematics, including Natural Philosophy; and one for the greatest proficiency in Mental Philosophy, including Logic, Psychology, Metaphysics, Moral Philosophy, and History of Philosophy.

Subjects for examination—

Classical Scholarship.—Latin Prose Composition; Latin Translation; Greek Prose Composition; Greek Translation. General—(*a*) Critical; (*b*) Greek and Latin History; (*c*) Greek and Latin Literature. Verse Composition, either in Greek or Latin; or an original Latin Essay on some subject connected with Ancient History, Literature, or Life.

Mathematical Scholarship.—*Mathematics*—Euclid's Elements. Modern Geometry. Algebra, including Determinants, Finite Differences, and Theory of Equations. Trigonometry, Plane and Spherical. Analytical Geometry, in two and three dimensions. Differential and Integral Calculus, and Differential Equations.

Natural Philosophy.—Abstract Dynamics (commonly called Mechanics), including Kinematics and Statics and Kinetics of Solids and Fluids. Acoustics, Heat, Light, Magnetism and Electricity, treated both mathematically and experimentally.

Candidates will be allowed a choice of questions, and may obtain full marks by showing good general knowledge and an intimate acquaintance with any branches they may have specially studied.

Philosophical Scholarship.—*Logic.*—Province and History of Logic. Notions, Judgments, and Inferences. Recent developments of Formal Logic. Fallacies. Theory and Methods of Scientific and of Historical Proof.

Psychology and Metaphysics.—The Phenomena and Laws of Mental Life and of its Development. Theory of Knowledge. Theory of Reality.

Moral Philosophy.—Psychology and Metaphysics of Ethics. Relations of Ethics to Law, Politics, and Economics. Applied Ethics.

History of Philosophy.—History and Critical Analysis of Ancient and Modern Systems of Philosophy.

The competition will be open to all persons who have passed the Examinations required for the Degree of Master of Arts in one of the Universities of Scotland (whether taking the Degree at the same time or not), provided that, at the time of the competition, not more than six years have elapsed since the date of their first entering a class qualifying for the M.A. Degree, and who have not already gained one of these Scholarships.

The Examinations will be conducted in writing, and the Scholarships awarded on the report of the Examiners as to the merit of the Candidates, but the minimum of 60 per cent. of the possible marks must be reached in order to entitle to a Scholarship.

The Scholarships, of £80 each per annum, are tenable for two years, subject to fulfilment of the following rule of the trustees:—

"Persons gaining the Scholarships will be expected, during the "tenure thereof, to prosecute studies in furtherance of the higher "learning; and those who have not graduated shall be required to "do so before the last payment is made."

Certificates will be granted to such of the unsuccessful competitors as, in the opinion of the Examiners, shall have taken a distinguished position in the Examinations.

Candidates are requested to give in their names, personally or by letter, at the office of The Ferguson Bequest Fund, 94 Bath Street, Glasgow, before 1st September, 1909, and due intimation will be sent to those enrolled as to the place and hours of Examination.

The following Students of the University of Glasgow have obtained Ferguson Scholarships:—

1868, James Smith, Mathematical; 1869, Archibald B. Cameron, Philosophical; 1870, John Cross, Classical; 1870, James Orr, Philosophical; 1872, Wm. W. Waddell, Classical; 1873, Thomas H. Miller, Mathematical; 1874, William Patrick, Philosophical; 1875, William Y. King, Classical; 1878, John M'A. Dodds, Mathematical; 1878, Thomas B. Kilpatrick, Philosophical; 1882, Robert F. Muirhead, Mathematical; 1883, James A. M'Callum, Philosophical; 1886, James Buchanan, Mathematical; 1886, Andrew F. Smith, Philosophical ; 1888, Ernest F. Scott, Classical ; 1889, Evan Keri Evans, M.A., Philosophical ; 1890, Abraham Levine, M.A., Mathematical ; 1891, James Holm, M.A., Mathematical ; 1893, Horatio S. Carslaw, M.A., Mathematical ; 1897, William Boyd, M.A., Philosophical ; 1898, George D. Valentine, M.A., Mathematical ; 1899, Robert D. Bell, M.A., Classical ; 1900, David K. Picken, M.A., Mathematical ; 1901, David M. Stewart, M.A., Mathematical ; 1901, Alexander D. Lindsay, M.A., Philosophical ; 1902, Francis P. H. Stirling, M.A., Mathematical ; 1905, John Waugh Scott, M.A., Philosophical ; 1906, John Rankine Brown, M.A., Classical ; 1906, Archibald Allan Bowman, M.A., Philosophical ; 1907, Thomas M. MacRobert, M.A., Mathematical ; 1908, Hugh A. Reyburn, M.A., and Leonard J. Russell, M.A., equal, Philosophical.

Present Holders of the Scholarships. Alexander G. Sutherland, M.A., of Aberdeen University, Classics, 1907 ; Thomas M. MacRobert, M.A., of Glasgow University, Mathematics, 1907 ; George Ewan, M.A., of Edinburgh University, Mental Philosophy, 1907 ; Lionel S. Charles, M.A., of St. Andrews University, Classics, 1908 ; Alexander B. Grieve, M.A., of Edinburgh University, Mathematics, 1908 ; Hugh A. Reyburn, M.A., and Leonard J. Russell, M.A., both of Glasgow University, equal, Mental Philosophy, 1908.

FOULIS MEMORIAL SCHOLARSHIP.—This Scholarship was founded in 1882 in memory of the late David Foulis, M.D., Glasgow, who had distinguished himself in Pathology and Surgery, and died at the age of 35 years. It is to be awarded as often as the accumulated income from the invested funds amounts to £50. It is tenable by a graduate or licentiate whose professional education has, to the extent of not less than two years, been received at the University or one of the extra-mural schools of Glasgow ; and who shall, in the opinion of the trustees, have manifested a capacity for original work in the department of Pathology. The purpose of the Scholarship is to assist in the prosecution of such work in one of the Medical Schools in or furth of Scotland, approved of by the trustees ; and the trustees have power to determine whether it should be awarded by competition or otherwise.

The trustees are the Professor of Practice of Medicine in the University, the President and Visitor of the Faculty of Physicians and Surgeons of Glasgow, and the Pathologists of the Western and Royal Infirmaries. Further particulars may be obtained from Messrs. J. M. Taylor, Nelson, Walker & Co., 180 St. Vincent Street.

Scholars—Leonard Findlay, M.D., 1908 ; Alexander C. Russell, M.B., 1908.

THE GROCERS' COMPANY'S SCHOLARSHIPS.—The Grocers' Company of London, with the object of encouraging Original Research in Sanitary Science, offer annually to British subjects, under thirty-five years of age, two Scholarships, each of £300 a year, with an allowance to meet the cost of apparatus and other expenses in connection with the work, tenable for one year from the first day of June, and renewable for a further period of one year or of two years. Candidates are required to state the nature of the research proposed, and no subject which does not come, broadly speaking, under the category of an inquiry into the Causation of Prevalent Disease or as to Means of Prevention of Premature Death will be considered eligible. When a vacancy occurs applications should be sent in before the first day of April to the Clerk of the Grocers' Company, Grocers' Hall, London, E.C., from whom a form of application and further information may be obtained.

WILLIAM HOULDSWORTH RESEARCH STUDENTSHIP.—In March, 1898, the late William Houldsworth, merchant in Glasgow, in recognition of the distinguished services of his friend, Lord Kelvin, to the cause of scientific research, made over to the University the sum of £5600 invested in Great Eastern Railway Four per cent. Debenture Stock, to provide a Research Studentship in connection with the Faculty of Science. Candidates must be students of at least two years' standing in the University of Glasgow. The studentship is tenable for two years, and the holder must prosecute his work with diligence and regularity so as to receive from the Professor of Natural Philosophy a certificate of creditable success. A proportion, viz., four-fifths, of the annual income is payable without deduction to the Research Student for personal expenses, and the remaining fifth part, after meeting the expenses of administration, is applied in payment of laboratory expenses and materials in connection with the Research Student's work, and in payment of his matriculation fees and of the fees for such Science Classes, if any, at the University as he may attend with the approval of the Senate. The said one-fifth part of the income must be expended at the sight and to the satisfaction of the Professor of Natural Philosophy or upon orders granted by him, and the Research Student is required to furnish the Professor with a statement showing the sums so expended in each session, and also during his tenure of the Studentship. Any surplus remaining over shall be added to the principal of the fund. In the event of the Studentship falling vacant otherwise than by lapse of time, the Senate may immediately make another appointment for a period not exceeding two years, and in the event of the Senate considering it not advisable at any time to make an appointment on the occurrence either of a casual vacancy or of a vacancy in regular course, the same may be deferred, and the income thus left unused shall be added to the principal of the fund.

When a vacancy occurs, the applications of candidates must set forth the particulars required by Ordinance No. 61, Section III. See page 172.

Research Student—Robert C. Gray, 1909.

LLOYD'S REGISTER SCHOLARSHIP.—In 1889 the General Committee of Lloyd's Register of British and Foreign Shipping intimated their intention of establishing a Scholarship of the yearly value of £50, tenable for three years by students of Naval Architecture in this University. In 1893 two additional Scholarships, each of the same value and tenure of the first, were announced. They are open to competition to candidates whose age does not exceed 23 years. Each candidate must produce satisfactory evidence that £50 a year would enable him to pursue his studies, and that he would be unable to do so unless this aid were afforded. The subjects of examination are the following:—Euclid, Books I. II. III. IV. VI. and XI.; Algebra, including Quadratic Equations, the three Progressions, and Binomial Theorem; Plane Trigonometry, with use of Logarithms; Elements of Statics, Dynamics, and Hydrostatics; Practical Shipbuilding; Mechanical Problems. A preference will be given to a candidate who possesses a thorough grammatical knowledge of English and of either French or German, although he may be somewhat deficient in the other subjects prescribed. One Scholarship will be open to competition in October, 1909. Names of Candidates to be sent to the Assistant Clerk (Matriculation Office) on or before 3rd September, 1909.

Scholars—Thomas Graham, 1906; Frederick W. Powell, 1907; William Bennett, 1908.

PATRICK A. LOWSON MEMORIAL SCHOLARSHIP 1873. Capital Funds, £2,100. The Scholarship is tenable for two years, and is worth, subject to certain conditions, not less than £60 per annum, and is at present £70 per annum. Candidates must have attended three years, not necessarily consecutive, at a school or schools in Dundee or Broughty Ferry, and may have attended, for not more than one session, any University or College in the United Kingdom. Trustees, the Parish Minister of Dundee, the Lord Provost of Dundee, the President of the Chamber of Commerce (*ex officio*), and William Lowson, J. G. F. Lowson, J. C. Buist, Robert B. Don, George K. Smith, Charles G. Gourlay, and Archibald W. Sturrock. Factor, Robert Morton, Savings' Bank, 2 Euclid Street, Dundee.

Scholar—Daniel Stalker (at Edinburgh University), 1908.

LUKE FELLOWSHIP.—In 1863, the late William Luke, Esq., of Edinburgh, bequeathed to the University of Glasgow the sum of £3,000 sterling, "to perpetuate the memory of his nephew George Rankin Luke" (formerly a highly distinguished student of this University, and afterwards student of Christ Church, Oxford), "in such a manner as his esteemed friend, Professor Nichol, may consider most beneficial." Professor Nichol exercised the discretionary power thus conferred on him by directing that the sum bequeathed should be applied to the founding of a Luke Fellowship. The following are the regulations:—

1. There shall be a single Luke Fellowship (of about £95 per annum), tenable for three years, subject to the approval of the Senate at the end of the first and second years.

2. The Luke Fellowship shall be awarded on examination on English Literature, and on prescribed periods in History.

3. The Luke Fellowship shall be open to competition in October, 1868, and thereafter triennially.

4. Competitors for the Luke Fellowship must be Masters of Arts of this University, of not more than three years' standing; provided always that students graduating at the supplementary graduation in November of any year shall, for all purposes, be held to have graduated at the ordinary graduation in the April immediately preceding.

5. The Luke Fellowship shall not be held along with the Snell Scholarship, the Clark Scholarship, the Eglinton Fellowship, or the Ewing Fellowship.

6. Students who have competed at one Luke Fellowship Examination shall not be admitted to another, nor shall the holder of the Eglinton Fellowship; but in the event of a candidate's being appointed to a vacancy to be filled for less than three years, and being still eligible, under the usual regulations as above, to compete for the Luke Fellowship on the occasion of the next regular vacancy, he shall be qualified to compete just as if he had not previously held the Fellowship, but in no case shall any student be permitted to hold the Fellowship for more than three years in all.

Ordinance No. 100 of the Universities Commission (1889) prescribes that the provisions of Ordinance No. 57 shall apply to the Luke Fellowship, but provides that it shall not be a condition of tenure of the Fellowship that the holder shall give assistance in teaching the class of English Literature.

The next competition for the Luke Fellowship will take place in October, 1910, the subjects being those for Honours in English (Language, Literature, and British History).

Fellow—John B. Black, 1907.

M'CUNN MEDICAL RESEARCH SCHOLARSHIPS.—These Scholarships were instituted in 1904 by the Trustees of Mr. William M'Cunn, of Landour, Largs, who died on 29th July, 1896. They are four in number, each of the annual value of £100, and tenable for one year, subject to reappointment for another year in the discretion of the Trustees. They are open to Graduates in Medicine of a Scottish University, provided that not more than two years shall have elapsed since the candidate has taken his or her degree. The subjects are eight in number, divided into two groups, viz.: Group

A.—Medicine, Surgery, Pathology, Bacteriology. Group B.—Therapeutics, Public Health, Physiology, Physiological Chemistry. In 1905 scholarships were to be awarded for the encouragement of original research in one or more of the four subjects in Group B; and in 1906 four or less if reappointments are made as above mentioned were to be awarded in like manner in Group A. A candidate must be nominated by a Professor or Lecturer in a Scottish University, or by a Teacher in Scotland recognised for the purpose of Graduation in Medicine by a Scottish University. Nominations must be lodged with the Secretaries of the Trust on or before the first day of September, and candidates shall undergo a written examination to be held in Glasgow in the month of October. The scholars shall be appointed by the Trustees, and shall during the year of tenure prosecute research in one or more of the subjects for that year in such institutions, either at home or abroad, as may be approved by the Trustees. For further information and for nomination forms apply by letter to Messrs. M'Innes, Mackenzie, and Lochhead, the Secretaries of the Trustees, 7 Gilmour Street, Paisley. (Four vacancies.)

Scholars—William H. Duncan, M.A., M.B., Ch.B., Glasgow, 1908; Thomas S. M'Intosh, M.B., Ch.B., Edinburgh, 1908; George A. Allan, M.B., Ch.B., Glasgow, 1908.

MACKAY SMITH SCHOLARSHIPS.—One in Natural Philosophy, the other in Chemistry, each of the annual value of £48, and tenable for two years in the Universities of Edinburgh and Glasgow alternately. During sessions 1882-83 and 1883-84 they were held in the University of Edinburgh, and during sessions 1884-85 and 1885-86 in the University of Glasgow. An examination for the Scholarship in Natural Philosophy will be held in this University in October, 1909. Candidates must have already attended, or must be then attending the class of Natural Philosophy or Chemistry respectively. The Scholarship in Chemistry will be awarded on an examination held at the same time and of the same scope as the Final Science Examination in that subject for the Degree of B.Sc. in Pure Science, and the Scholarship in Natural Philosophy on an examination held at the same time and of the same scope as the examination in that subject for the degree of M.A. with Honours.

Scholar—Alexander S. Russell, M.A., 1909 (Chemistry).

MACKINNON SCHOLARSHIP.—By the will of the late Sir William Alexander Mackinnon, K.C.B., LL.D., Surgeon-General of Her Majesty's Army and Director-General of the Army Medical Staff, a sum of £2000, less legacy duty, was bequeathed to this University for the foundation of a Scholarship. The Scholarship of the present yearly value of £60 is to be awarded to the person who shall in each year show the greatest proficiency in a competitive examination in (1) Geology, (2) Natural History (with Comparative Anatomy), and (3) Modern Foreign Languages, the examination in each subject to be held every third year. The subjects are to be taken in rotation, commencing in such order as the University authorities shall determine. In the event of the Scholarship not being awarded in any year, the amount of the Scholarship with any accumulations shall be added to the amount to form the Scholarship in the same subject on the recurrence of the examination therein.[1]

The following are the regulations :

1. The rotation of subjects shall be as follows :—Modern Foreign Languages at the Autumn Degree Examination, 1903 ; Natural History (with Comparative Anatomy) in Autumn, 1904 ; and Geology in Autumn, 1905, and so on thereafter.

2. The examination in Modern Foreign Languages shall be the same, and shall be held at the same time as the examination for Degrees in Arts with Honours in Modern Languages.

3. The examinations in Natural History (with Comparative Anatomy) and in Geology shall be the same and held at the same time as the Final Science Examination in these subjects for the Degree of B.Sc.

4. The holder of the Scholarship in one year shall be eligible for reappointment the next year, provided he is found qualified on examination in the subject for that year ; provided also that no candidate shall hold the Scholarship more than once in any subject.

5. The order of merit shall be fixed by the examiners at each examination, but no appointment in the Science subjects shall be made unless the candidate highest on the list shall have obtained at least 65 per cent. of the attainable marks.

6. Should the Mackinnon Scholarship in Geology fall vacant at the same time as the Baxter Demonstratorship, the two appointments may be held concurrently.

Subject to these regulations, an appointment falls to be made after the examinations in October, 1909, to the Scholarship in Modern Foreign Languages.[1]

Scholars—Matthew M. Monie, M.A., and David P. Macdonald, M.A., B.Sc.—equal, 1908.

METCALFE FELLOWSHIP.—Founded by the late Miss Sarah Metcalfe, Glasgow. (See under Metcalfe Bursaries, p. 395.)

The following are the regulations of the Metcalfe Fellowship :—

1. There shall be a Fellowship on the Metcalfe Foundation of the

---

[1] The Scholarship in Modern Languages, open in 1906, was not awarded.

annual value of £120, tenable for three years, to be competed for in October, 1872, and thereafter triennially (1911).

2. Candidates must be Masters of Arts with Honours in the Group of Mathematics and Natural Philosophy, of not more than three years' standing, provided always that students graduating at the supplementary graduation in November of any year shall for all purposes be held to have graduated at the ordinary graduation in the April immediately preceding.

3. The examination shall be the examination for the Degree of Master of Arts with Honours in the Group of Mathematics and Natural Philosophy.

4. The Fellowship shall be held subject to the condition of pursuing in the University of Glasgow a course of study in such of the following subjects—viz., Higher Mathematics, Astronomy, Civil Engineering, and Chemistry—as the Senate shall in each case prescribe.

5. The Metcalfe Fellowship shall not be held along with the Eglinton Fellowship, the Snell Scholarship, or the Breadalbane Scholarship; and the holder of the Eglinton Fellowship shall not be allowed to compete for the Metcalfe Fellowship; but in the event of a candidate being appointed to a vacancy to be filled for less than three years, and being still eligible, under the usual regulations as above, to compete for the said Fellowship on the occasion of the next regular vacancy, he shall be qualified to compete just as if he had not previously held the Fellowship, but in no case shall any student be permitted to hold the Fellowship for more than three years in all.

Fellow—Alexander S. Small, M.A., B.Sc., 1908.

MINING SCHOLARSHIPS.—The Institution of Mining and Metallurgy, Salisbury House, London, offers annually two Scholarships of £50 each to Graduates under 25 years of age to assist them in taking a practical course in Mines or Works at home or abroad. For particulars apply to the Clerk of Senate or to Professor Latham.

NEWLANDS SCHOLARSHIPS.—In 1908 the Right Honourable James Henry Cecil Hozier, second Baron Newlands of Newlands and Barrowfield, and of Mauldslie Castle, Carluke, Honorary Fellow of Balliol College, Oxford, by Deed of Gift made over to the University of Glasgow £10,000 of Glasgow Corporation Three and a half per cent. Irredeemable Stock for the endowment of four Newlands Scholarships. Lord Newlands founded these Scholarships for the purpose of improving the connection between Glasgow University and Balliol College, and also as some recognition of the great services rendered to Education by his life-long friend, George Gilbert Ramsay, LL.D., Professor of Humanity in this University from 1863 to 1906. The Deed provides *inter alia* that so long as only one Snell Exhibitioner is appointed in each year each Exhibitioner shall also be a Newlands Scholar, and shall receive annually during four years, in addition to £100 from the Snell Fund, a sum of £80 or thereby from the Newlands Fund. The founder also made arrangements whereby the Snell Exhibitioners who were resident at Balliol at the date of his gift were constituted the first Newlands Scholars, and annual provision was made for them on the same scale during the remaining period of their respective tenures. The Newlands Scholars are bound to fulfil the conditions attached to the Snell Exhibitions, and in particular during the tenure of the Scholarships to give such residence in connection with Balliol College as is required by the Authorities of that College.

Scholars—John R. Brown, John H. Maxwell, Robert Gibson, Herbert J. Paton, 1908; Hugh F. Martin, 1909.

REID STEWART FELLOWSHIP.—Mr. James Reid Stewart, Ironmaster, Glasgow, who died on 8th August, 1896, directed his Trustees to pay a legacy of £2000, under deduction of legacy duty, to the Senate, the free income of which (about £60) is to be applied in and towards a Fellowship to be called the Reid Stewart Fellowship.

The following are the regulations:—

1. Candidates must be Masters of Arts who have taken the Degree of M.A. with Honours in either the Group of History or the Group of Economic Science, or be students presenting themselves for the final examination for the M.A. Degree with Honours in either of these Groups. The Fellowship shall alternate between History and Economic Science, beginning with History and giving three years to each.

But no student shall be admitted to the examination after the expiry of more than three winter sessions from the time of his completing the course necessary for the Degree of M.A. with Honours in either of these Groups.

2. The papers set in the examination shall be the same as the papers set for Honours in these Groups at the October examinations for Degrees in Arts, and the Examiners shall be the Examiners for the Degree of M.A. with Honours in these Groups. The Fellowship will be awarded for excellence in one Group, but not in both.

3. The Fellowship shall be tenable for three years, subject to the condition that the holder give his time and attention to the prosecution of his studies with a view to one of the learned professions

or to such professional or business avocation as may be approved of by the Senate.

4. In the event of a vacancy occurring otherwise than by lapse of time, it shall be in the power of the Senate to appoint, after competition under the same conditions as above, either for the unexpired period of the vacated Fellowship or for the full period of three years. If the Fellowship is offered for a period of less than three years, the conditions of competition and tenure shall be the same as those stated above, provided that no student shall be excluded from the competition who was eligible when the Fellowship was last offered for three years.

5. In the event of the Examiners reporting in any year that no candidate has done sufficiently well to deserve the Fellowship, no appointment shall be made on that occasion, but the Fellowship shall be offered for competition in the following year under the same conditions as in the case of a vacancy occurring otherwise than by lapse of time.

6. It shall not be competent for the holder of the Reid Stewart Fellowship to hold any other Bursary, Scholarship, or Fellowship in this University, without the special leave of the Senate. The next competition will take place in October, 1911, and the examination will be the examination for Honours in the Group of History.

Fellow—Elton L. Gueritz, M.A., 1908.

Robert W. Robertson Scholarship (*Law*).—Founded by the late Robert William Robertson of Glenshellish, who bequeathed to the University a sum of £1000 sterling for that purpose. The following are the regulations:

1. The Scholarship shall be awarded by the Senate annually in the month of April (except as hereinafter provided) to the Graduate in Law who, having taken the Degree of LL.B. at the autumn or spring Graduation immediately preceding the date of award, has obtained the highest aggregate of marks in the Degree Examinations.

2. No graduate shall be disqualified by his having obtained another Scholarship or Bursary or Prize in the Faculty of Law.

3. In cases of equality in the aggregate of marks, graduates bearing the name of Robertson shall have a preference, and failing this preference the Scholarship shall be divided.

4. If in any year the Faculty of Law report to the Senate that no graduate has attained a sufficiently high standard of merit, the Scholarship shall not be awarded, and the amount of the Scholarship for that year shall be added to the Capital fund.

Sandford Scholarship.—Founded in 1862 (by the investment of a sum of £520, raised by subscription), in memory of Sir Daniel K. Sandford, the eminent Professor of Greek in this University, who died in 1838. It is tenable for two years, and is awarded to the student who, on examination, gives proof of the greatest proficiency in the Greek language. Value about £20 per annum.

The examination of candidates for this Scholarship takes place every alternate year in the month of April (1910), and is open to all matriculated students (not Masters of Arts) who have attended the Public Greek Classes for not less than two sessions.

The subjects of examination are selected from the following authors:—Homer, 12 books; Herodotus, 4 books; Sophocles, 3 plays; Thucydides, 4 books; Æschylus, 3 plays; Demosthenes, one or more orations; Aristophanes, 3 plays; Xenophon's *Memorabilia*; Pindar; Plato, one or more dialogues.

Candidates are examined on not more than four of the above-mentioned authors (of which Homer is always one)—two in prose and two in verse; and the subjects for each examination are given out by the examiners at the end of the session previous to that in which the examination takes place. Candidates are also examined on Translations from Greek into English, with Criticisms, and Translations, in prose and verse, from English into Greek.

The subjects for April, 1910, will be:—Homer, *Odyssey*, xiii.—xxiv.; Aristophanes, *Knights*, *Clouds*, *Wasps*; Thucydides, i.– iv.; Plato, *Gorgias* and *Theaetetus*; Unseen Translation; Prose Composition and Iambic Verse if any Candidate offers it.

Scholar—Lionel Levine, 1908.

(Sir Walter) Scott Scholarship—(See under head "Scott Bursaries," p. 407).—This Scholarship, in value £80 per annum, is open for competition to Masters of Arts in the University of Glasgow of not more than three years' standing, having graduated with Honours in Classics or in Mental Philosophy, or to students who, at the time of competition, are presenting themselves for the final examination in the said University for the M.A. Degree with Honours in Classics or in Mental Philosophy. The examination to be in Classics, Mental Philosophy, and English Literature, which may include History. The Scholarship is tenable for two years, and the holder is required to follow such a course of study in the University of Glasgow, or give such assistance in the teaching work of the University as the Senatus Academicus may determine. The Scott Scholarship is not to be held along with any other Scholarship, Fellowship, or Bursary of the University of Glasgow. "The subjects of examination for the said Scholarship shall be, with the addition after-mentioned, Classics, or Mental Philosophy, or both of these, the special subjects being those for the examination for the M.A. Degree with Honours in the given department or departments for the year, and in addition to the examination abovementioned the competitors for the said Scholarship shall undergo an examination in English Literature of a higher kind than that required for an ordinary pass." The Scholarship will be open to competition in October, 1910. The examination will be in Mental Philosophy and in English Literature (not Language) from Chaucer downwards.

Scholar—Hugh A. Reyburn, 1908.

SHAW PHILOSOPHICAL FELLOWSHIP.—This Fellowship was founded by subscription in 1867, in the University of Edinburgh, in memory of Sir J. Shaw, Bart., who was born at Mosshead, in the Parish of Riccarton, and County of Ayr, in 1764, was elected Lord Mayor of London in 1805, and M.P. for the same city in 1806, and after a long and distinguished career, died in London in 1843; and is open to the competition of the Graduates in Arts of any of the Scottish Universities. The Fellowship consists of the free proceeds of the sum of £1,100 mortified to the Senatus Academicus of the University of Edinburgh under the following conditions, namely:—

1. The said Fellowship shall bear the name of "THE SHAW PHILOSOPHICAL FELLOWSHIP," in memory of the said Sir James Shaw, Baronet.

2. The Patronage of the said Shaw Philosophical Fellowship shall belong to the said Senatus Academicus, and shall be exercised by them, subject to the conditions herein contained, for the encouragement of the study of Logic, Metaphysics, Psychology, Moral Philosophy, and the History of Philosophy.

3. The Fellowship shall be awarded by competitive examination in the subjects of Logic, Metaphysics, Psychology, Moral Philosophy, and the History of Philosophy.

4. The Fellowship shall, on each occasion of an appointment thereto, be open to the competition of Graduates in Arts of the Scottish Universities—that is to say, the University of Edinburgh, the University of Glasgow, the University of Aberdeen, and the University of St. Andrews, of not more than five years' standing at the time of the competition, and of all students of the said Scottish Universities who, although they have not graduated in Arts, shall yet have successfully passed the last of the examinations necessary for such graduation in Arts, within the period of five years before the time of the competition; and the said Senatus of the University of Edinburgh, with consent of the Senates of the other Scottish Universities aforesaid, or of a majority of them, and with the concurrence of the University Court of the University of Edinburgh,

shall have power either to increase or to reduce the number of years of standing as graduates, or as students who have passed all the examinations necessary for graduation, as above fixed, for competitors for the Fellowship.

5. The Fellowship shall be tenable for five years only, but the said Senatus Academicus of the University of Edinburgh shall have power, with consent of the Senates of the other Scottish Universities aforesaid, or of a majority of them, and with the concurrence of the University Court of the said University of Edinburgh, to extend, with reference to all holders of the Fellowship, the term of tenure to any period of years not exceeding ten, if, in the course of time, it shall appear to them desirable to do so, from an increase in the number of foundations of a similar kind in the University of Edinburgh, or in the other Scottish Universities, or other sufficient reason.

6. The competitive examination for the said Fellowship shall, except in the case below provided for, be conducted by two Examiners, to be appointed in the manner following—to wit, one of the Examiners shall be appointed by the Senatus Academicus of the University of Edinburgh, either from among the members of the said Senatus or others, as they may think proper, and the other Examiner shall be appointed by the Senatus Academicus of one of the other Scottish Universities in rotation.

7. The said Examiners, so appointed, shall report their opinion of the result of the examination to the Senatus Academicus of the University of Edinburgh, who shall, as patrons of the said Fellowship, appoint thereto the candidate who appears by the report to be best qualified by proficiency in the subjects of Logic, Metaphysics, Psychology, Moral Philosophy, and the History of Philosophy, provided that, as required by the clause next following, such best qualified candidate shall, in the opinion of both the Examiners, have manifested a sufficiently high degree of proficiency to merit the Fellowship.

9. Each holder of the said Fellowship shall, during his tenure thereof, be entitled to receive the annual proceeds of Four Thousand One Hundred Pounds, and of any addition of the said sum which may hereafter be made thereto, as after-mentioned, after deducting all reasonable expenses, including the payment of remuneration to the Examiners appointed as aforesaid.

12. It shall not be competent for any person to hold the said Fellowship along with any other Fellowship, Scholarship, or Bursary, in any Scottish University, or appropriated to the students of any Scottish University or Universities.

17. It shall be in the power of the Senatus Academicus of the University of Edinburgh to require the holder of the Shaw Philo-

sophical Fellowship during the fourth or fifth year of his tenure of it, to deliver in the University of Edinburgh a Course of Lectures, not exceeding four, on any of the subjects for the encouragement of the study of which the Fellowship has been founded; and notice shall be given to the holder of the Fellowship twelve months previously to the time fixed for the delivery of the said Lectures that he is required to deliver them; but the said Senatus, with consent of the University Court of the University of Edinburgh, shall have power to alter the number of Lectures, if it shall be found desirable to do so.

Present Fellow—Alexander D. Lindsay, M.A. (of Glasgow University), 1904.

SNELL EXHIBITIONS.—In the year 1677, Mr. John Snell of Uffeton, in the County of Warwick, a native of Scotland, and formerly student in this University, devised to trustees a considerable estate near Leamington, in Warwickshire, for educating Scottish students at Oxford.

The Exhibitioners are now elected under a scheme settled in the Court of Chancery in 1872. By an agreement[1] made under the provisions of that scheme between the Master and Fellows of Balliol College, Oxford, and the Principal and Professors of Glasgow College, of date 30th July, 1907, the following regulations were sanctioned:

1. The value of the Snell Exhibitions shall be £80 a year.

2. They shall be held, as heretofore, for five years, but the whole sum of £400 will be paid to each Exhibitioner during the first four years of his tenure in equal annual sums, provided that a moiety of the last annual payment may be kept back, if the authorities of Balliol College think fit, until the Exhibitioner shall have taken his Degree.

To raise the annual payment to each Exhibitioner to £180 or thereby, Lord Newlands founded in Glasgow University the Newlands Scholarships—see p. 437.

Candidates must have been born in Scotland, or must be sons of fathers born in Scotland, and must "have resided[2] as Undergraduate Students for two years at least in Glasgow College, or for one year in that College and two at least in some other College in Scotland." "No candidate shall be admitted to examination who shall be a member of the University of Oxford of more than one year's standing from the day of his matriculation inclusive; and no candidate shall be admitted to examination more than once after he shall have completed his 23rd year; but a candidate otherwise qualified shall not be excluded from examination on the ground that he is a graduate of any Scotch University."

---

[1] For details of previous agreements see *University Calendar* for session 1907-8 pp. 410, 411.

[2] By Resolution of date December 13th, 1866, the Senate determined that "Residence" shall, for the purpose of the Snell Trust, be constituted by regular attendance as a public student for the complete winter session on not less than two of the classes in the curriculum for the Degree of Arts.

Candidates are expected to inscribe their names in a book kept at the Clerk of Senate's Office for the purpose, not later than 1st November, 1909. The next examination will be held in December, 1909, on days and hours to be fixed hereafter.

The subjects of examination are as follows:

In Latin, Greek, Logic, Moral Philosophy, and History.—The subjects of examination for the Degree of M.A. with Honours.

In Natural Philosophy and Mathematics.—The subjects of examination for the Ordinary Degree of M.A., and higher subjects which any candidate may express a wish to be examined in.

Candidates are requested to take notice that they are not required to attend the examination in more than one of the four groups, viz.: Classics, Mental Philosophy, Mathematics and Natural Philosophy, and History; that a candidate may be appointed for decided excellence in any one department alone; and if such excellence in some one of the departments be not displayed by three of the candidates, the Senate will either appoint a candidate who has shown sufficient proficiency in several departments, or will abstain from making any appointment. All candidates, however, will be required to write an English Essay on a subject prescribed at the time. Candidates who do not offer Classics will be required to show such a knowledge of Latin and Greek as to prove their ability to pass Responsions at Oxford.

Exhibitioners—John R. Brown, 1905; John H. Maxwell, 1906; Robert Gibson, 1907; Herbert J. Paton, 1908; Hugh Forgan Martin, 1909.

Thomson Experimental Scholarships.—Three Scholarships, in value about £20 each, for the promotion of Experimental Research, founded by Sir William Thomson (afterwards Lord Kelvin), LL.D., D.C.L., Professor of Natural Philosophy in the University, by letter to the Principal of date September 6th, 1869, in which, after referring to "the liberal and friendly spirit which had been shown him by his colleagues in respect to his connection with telegraphic enterprise," and the "facilities for experimenting which the College had afforded him," he states that "he wished to mark his sense of these benefits by setting aside something of what he had received to assist in promoting the cultivation of experimental investigation in Glasgow University," and for this purpose offered for the acceptance of the Senate the sum of £1,000.

The scholars are appointed by the Senate on the recommendation of the Professor of Natural Philosophy from among students who have previously shown their zeal and ability in Experimental Investigations in the Physical Laboratory, and they are required to engage in the continual prosecution of Experimental Investigations in the Laboratory for not less than nine months of the year, to the satisfaction of the Professor of Natural Philosophy. These Scholarships may be held along with any other Bursary, Scholarship, or Fellowship.

Scholars for 1908-9—Hugh Higgins, 1908; Robert C. Gray, 1908; John S. Anderson, 1909.

James Watt Scholarship.—In 1808, James Watt, LL.D., presented the College with a perpetual annuity of £10, for the institution of a prize, to be awarded to the author of the best Essay on some subject in the following branches of study, to be taken in rotation:—1. Any branch of Mechanics or its dependent Arts. 2. Statics, and the Machines and Arts dependent. 3. Pneumatics, Statical or Chemical, Machines and Arts. 4. Hydraulics, Hydrostatics, their Machines and Arts. 5. Chemistry, its Arts and Apparatus. All actual students who had completed, or who, at the end of the session in which the Prize fell to be awarded, should have completed a regular course of study in Languages and Philosophy, might be competitors. By Ordinance No. 93 of the Universities Commission (1889), issued on 15th February, 1895, and approved by Her Majesty in Council on 13th August, 1895, it was provided that the Watt Prize should be discontinued, that the funds should be allowed to accumulate for four years from the date of the Ordinance, and that thereafter a James Watt Scholarship in Engineering should be established.

The Scholarship, in yearly value about £42, is awarded by the Senate, on a special report by the Faculty of Science, to a Bachelor of Science of distinction of not more than two years' standing. It is tenable for two years, and the James Watt Scholar is required to pursue during his tenure special higher studies in the Engineering Laboratory, under the direction and to the satisfaction of the Professor.

Scholar—[1]Thomas W. Chalmers, B.Sc., 1908.

---

[1] Vacant by resignation of scholar.

3.—*PRIZES.*

Besides the class Prizes, and a number of Prizes given by the different Professors for particular kinds of merit, there are others which the generosity of public-spirited individuals has founded for the encouragement of learning in the University.

The names of the Prizemen for Session 1908-1909 will be found in the Degree and Prize List.

INDEX.

FOUNDATION.	NATURE OF PRIZE.	AWARDED FOR
Arnott, - - - - -	£25 and £15,	Examinations.
Bellahouston,- - - -	Gold Medals,	Thesis for M.D.
Brunton Memorial, -	£10,	Examinations.
Buchanan (3), - - -	Books,	Do.
Burnet, Lindsay, - -	Silver Medal,	Research.
Cleland, - - - - -	Gold Medal,	Examinations.
Cleland & Rae Wilson.	Four Gold Medals.	Do.
Cobden, - - - - -	£20 and Silver Medal (triennial),	Essay.
Coulter, - - - - -	Two at £5 each,	Essays.
Cowan, - - - - -	Three Gold Medals,	Examinations.
Cunninghame, - - -	Gold Medal,	Do.
Dickson Prize, - - -	Books,	Do.
Dobbie-Smith, - - -	Gold Medal (biennial),	Essay.
Dowanhill, - - - -	£20 and £10,	Elocution.
Ewing, - - - - -	Gold Medal (biennial),	Essay.
Findlater, - - - - -	£38,	Examination.
Gartmore, - - - -	Gold Medal (biennial),	Essay.
Gladstone Historical, -	£25 (biennial),	Examination.
Gladstone Memorial, -	£5 in Books,	Do.
Harvey, George, - -	£14,	Do.
Henderson, - - - -	£21,	Essay.
Jamieson, - - - -	£10,	Examination.
Jeffrey, - - - - -	Gold Medal,	Do.
Kirk Memorial, - - -	£14,	Do.
Logan, Thos., Memorial.	Gold Medal and £12,	Do.
Luke Historical, - -	£10 (biennial),	Do.
Macfarlan and Cook, -	£21,	Do.
Macleod, - - - - -	Gold Medal,	Do.
Muirhead, - - - -	Books,	Do.
Muirhead, G. Roger, -	£2 5s.,	Do.
Nichol Memorial, - -	Books,	Do.
Reid, John, - - - -	£25,	Original Research.
Ross, Robert (2), - -	Med., books, or money,	Examinations.
Scott-Macfarlan, - -	Gold Medal,	Examination.
Straits Settlements, -	Gold Medal,	Thesis for M.D.
Struthers - - - - -	Silver Medal,	Research.
University, - - - -	Gold Medal and Money,	Essay.
Walker (4), - - - -	Books, etc.,	Examinations.
Watson, - - - - -	£50,	Examination.

ARNOTT PRIZES.—Founded in 1869, by Dr. Neil Arnott of London, who presented to the Senate the sum of £1,000 to found a Prize, or Prizes, for the encouragement of the study of Natural Philosophy among the Medical students of the University.

By resolution of the Senate of date April 10, 1873, the following regulations were adopted :—

1. That there shall be two separate examinations—one in General Physics, for students of the first and second years of their Medical studies ; the other for students of the third and fourth years, in Physiological Physics, or the application of the doctrine of General Physics to Physiological Science.

2. The knowledge required for the second of these examinations being much more extensive, and of a much higher order than that required for the first, and being the kind of knowledge of which it is most important to encourage the cultivation, as not only useful in the practice of the Medical Art, but eminently fitted to advance the Physiological Sciences ; that a sum of not less than Twenty-five pounds be offered annually, in one or several sums, as circumstances may require, to the student or students who excel in the second examination.

3. That the remaining portion of the revenue derived annually from Dr. Arnott's donation be offered in the same way to the student or students who excel in the first examination.

4. That the first examination be under the superintendence of the Faculty of Arts, with the Professors of Physiology and of Anatomy as Assessors.

5. That the second examination shall be under the superintendence of the Medical Faculty, with the Professors of Natural Philosophy and of Mathematics as Assessors.

6. That all candidates shall, at the commencement of each session, intimate their intention to the Assistant Clerk (Matriculation Office) ; and that, to prevent unqualified persons from coming forward, each candidate shall produce satisfactory evidence of his having attended a Course of Lectures on Natural Philosophy, or of having been a pupil in a Laboratory where Practical Physics or Practical Physiology is taught ; or, failing of these qualifications, he shall deposit the sum of ten shillings, which shall be forfeited if his examination marks fall below the average standard.

7. That every candidate who passes creditably the first examination shall be thereby entitled to come forward for the second, without being obliged to deposit the sum of ten shillings.

8. That no prize shall be awarded without sufficient merit being shown, and that in the event of one or more of the prizes on any occasion not being awarded, the amount shall be added to the principal sum.

The examination will be in writing, and will be held on Saturday, the 2nd October, 1909, in the Examination Hall, at 2 P.M. Intending candidates to give in their names to the Assistant Clerk (Matriculation Office) on or before 3rd September.

BELLAHOUSTON GOLD MEDALS.—Since 1897 the Bellahouston Trustees, in addition to numerous other benefits conferred on the Library and Scientific Departments, have put it in the power of the University to award three Gold Medals yearly to those who, having gained Honours, are pronounced by the Senate on the Report of the Faculty of Medicine worthy of this highest distinction for the excellence of their Theses.

BRUNTON MEMORIAL PRIZE.—Founded in 1879, in memory of the late Duncan M. Brunton, M.A., M.B., Paisley, a distinguished graduate of this University, who died on 16th November, 1876, of fever, contracted in the diligent discharge of his professional duties in the Royal Infirmary of Paisley. The Committee of Subscribers paid over to the Senate the sum of £300, the interest of which is to be given annually to the most distinguished graduate in Medicine of the year.

BUCHANAN PRIZES.—A Bursary was founded in 1866, in recognition of the eminent services of Robert Buchanan, LL.D., as Professor of Logic and Rhetoric in the University during the long period of forty years. The fund consists of a sum of £314 raised by subscription. The Buchanan Bursaries having been founded under the Will of Professor Buchanan, the proceeds of this fund are now, with the sanction of the subscribers, applied to the purchase of books, which are annually awarded to the most distinguished students in the classes of Logic, Moral Philosophy, and English Literature.

LINDSAY BURNET SILVER MEDAL.—In 1901 the relatives of Mr. Lindsay Burnet, Engineer in Glasgow, who died on 14th March, 1895, founded this Medal to his memory, and also as a memorial of the respect which he entertained for Archibald Barr, D.Sc., Professor of Civil Engineering and Mechanics, and for his work in the University. The following are the regulations:—

The Medal shall be awarded to a student in regular attendance at the University for a thesis descriptive of a research upon a subject connected with The Properties or the Utilisation of Fuel, The Generation or Properties of Steam, The Principles of Thermodynamics, or The Operation of Heat Engines.

The research shall be conducted by the candidate in the Engineering Laboratories of the University, but in exceptional cases investigations requiring the use of machines or apparatus not provided in the Laboratory may be conducted in part elsewhere under such conditions as may in each case be sanctioned by the Professor of Engineering.

The Professor of Engineering may sanction the employment of such assistance, if any, as he may in each case deem necessary for the efficient carrying out of the research, and shall regulate the use of apparatus belonging to the University as regards the time when it shall be at the disposal of the candidate and the manner in which it may be employed.

The Senate shall from time to time issue regulations regarding the standing of students who shall be eligible to compete for the Medal, the form which the theses shall take, the date on or before which the theses must be submitted, and other details.

All matriculated Engineering Students and all University or other Research Students may compete; any Thesis submitted must be a description of an experimental research conducted in accordance with the foregoing regulations, and must be sent to the Clerk of Senate not later than 11th October.

The Medal shall be awarded by the Senate after receiving a report from the Professor of Engineering and any assessor or assessors whom the Senate may have appointed to act with him.

The Senate may withhold the Medal in any year in which, in their opinion, no thesis of sufficient merit has been submitted.

The Professor of Engineering shall have the power to prescribe a particular subject or to limit the range of subjects upon which theses may be presented in any year; and, farther, with a view to avoiding any undue interference with other researches, or with the general routine work of the Laboratory, he shall have power to prescribe the particular subject or range of subjects with which any individual candidate may deal.

The theses shall become the property of the University, and may be preserved in the Engineering Departmental Library or elsewhere as the Senate may direct, and the Senate may grant to students or others access to the theses under such conditions as they may from time to time prescribe. At all reasonable times the candidate shall have access to his own thesis for reference.

All results obtained in researches conducted in competition shall be subject, as regards rights of publication, to the general conditions applicable to work done in the University by research students and to any special regulations that may be made relating to work conducted in the Engineering Laboratory.

Should any new Chair or Chairs in Engineering Science be instituted in the University, the Professor whose laboratory courses are, in the opinion of the Senate, most closely identified with the general application of thermodynamics to engineering practice shall be deemed to be the Professor of Engineering for the purposes of this Foundation.

CLELAND AND RAE WILSON GOLD MEDALS.—Dr. James Cleland, Superintendent of Public Works in Glasgow, who died 14th October, 1840, founded a Gold Medal of the value of Ten Guineas, to be bestowed in alternate years on a student of Divinity, and a student of Natural Philosophy, as a prize for the best Essay on any subject to be prescribed by the Principal and Professors of the University.

Dr. William Rae Wilson of Kelvinbank, who died 2nd June, 1849, founded a Gold Medal to be bestowed upon the Divinity student who should produce the best Essay on the Life of Christ.

These foundations are now regulated by Ordinance No. 97 of the Universities Commission (1889). The Cleland Gold Medal, not exceeding ten guineas in value, is awarded to the most distinguished student in the class of Natural Philosophy in each year. The remainder of the free income of the Cleland Foundation is added to the total free income of the Rae Wilson Foundation, to provide four Gold Medals of equal value. These medals are awarded in each year as follows:—One to the most distinguished student in each of the classes of (1) Divinity, (2) Ecclesiastical History, (3) Hebrew and Semitic Languages, and (4) Divinity and Biblical Criticism. In the event of there being no student of sufficient distinction in any of these classes, the proportion of the income for that year may be applied towards the promotion of theological study in such manner as the Senate may decide.

COBDEN PRIZE.—This prize of the value of £20, together with a silver medal, will be offered by the Cobden Club, London, every third year for an essay on some subject connected with political economy. The subject is to be fixed by the three adjudicators, two of whom are appointed by the University and the third by the donors. Members of the University of not more than six years' standing may be competitors. The prize will be awarded in 1906 and thereafter triennially.

COULTER PRIZES.—In 1787 Mr. James Coulter, merchant in Glasgow, bequeathed £200 to the University, "the annual proceeds to be applied in premiums, one or more, either pecuniary or honorary, for the encouragement of Composition and Elocution, upon subjects of the Faculty's choosing." The interest of this sum is now divided into Two Prizes of £5 each; the one to be given in alternate years for a Sermon or Theological Essay, and for an Essay on Mental Philosophy and English Literature, the other to be given annually for a translation from some Classical Author, or other composition connected with Classical Literature. The competition for these prizes is open to all matriculated students of the University.

Cowan Gold Medals.—In 1836 Dr. Cowan of Sunderland presented to the University the sum of £400, the interest to be applied annually in the purchase of Two Gold Medals of the value of about £10 each, to be awarded to the two students who may distinguish themselves most in the Greek and Latin Examination upon the Blackstone; and shortly afterwards (1839) the same gentleman presented the University with an additional sum of £105, the interest to be expended annually in the purchase of a Gold Medal of the value of £5, to be awarded to the best student in the Humanity Class.

The examination for Dr. Cowan's Blackstone Medals will be held early in November, 1909. Competitors to be eligible must be public students in some curriculum class in the Faculty of Arts.

For the Greek Medal—1. A candidate must have received a Certificate in the Greek Class for session 1908-1909.

2. Every candidate will be required to answer a Preliminary Paper, consisting of unprepared passages for translation.

3. Two or more candidates, selected by this paper, will on a subsequent day be examined orally in the books which they offer.

4. Each selected candidate must offer for the Oral Examination (i.) one Verse Subject, (ii.) one Prose Subject. (i.) The Verse Subject must be *either* five books of Homer, or two Greek plays (tragedies or comedies). (ii.) The Prose Subject may be any *one* of the following:—(*a*) Herodotus—two books; (*b*) Thucydides—two books; (*c*) Plato—two dialogues, or two books of the *Republic*; (*d*) Aristotle—two books of the *Ethics*, of the *Politics*, or of the *Rhetoric*.

5. Any member of the Greek Class for session 1909-10 is at liberty to go in for the Preliminary Paper, even though he is not a candidate for the Cowan Medal; and if he acquits himself with distinction in that paper, his name will be mentioned when the award of the Medal is announced.

For the Latin Medal competitors must in the session preceding the competition have received a public ticket of the Latin Class.

Notice is hereby given, that at the examination for Dr. Cowan's Medals in November, 1892, and thereafter, no one will be admitted to compete for the Greek Cowan Medal who has attended for more than three sessions, or who, after passing the preliminary examination in Greek, has attended for more than two sessions in any Scottish University, and no one shall be admitted to compete for the Latin Cowan Medal who has attended for more than two sessions, or who, having been admitted to the Senior Class in consequence of having passed the preliminary examination in Latin, has attended for more than one session in any Scottish University.

Cunninghame Gold Medal.—In 1886 Mr. Andrew Cunninghame, Town Clerk Depute of Glasgow, bequeathed to the University, *inter alia*, £350, free of legacy duty, with directions that the annual revenue thereof should be applied in purchasing a Gold Medal as a prize in the class of Mathematics.

DICKSON PRIZE.—In 1895, when the late Professor Dickson retired from the Chair of Divinity, his former students presented him with a testimonial consisting of silver plate and a cheque for £120. This sum was handed over by Dr. Dickson to the University Court, that the free annual income might be applied in the form of a prize of serviceable books to accompany the gold medal given to the most distinguished student of the year in the class of Divinity. In accordance with the wish of the subscribers the prize has been called the Dickson Prize.

DOBBIE-SMITH GOLD MEDAL.—In 1881 Mr. Thomas Smith, L.R.C.S.E., Heriot Hill House, Edinburgh, presented to the University, in memory of his wife, lately deceased, the sum of £150 for the purpose of founding a University Gold Medal of about £10 in value, to be given biennially for the encouragement of the study of Botany. The competition is open to all Matriculated Students of the session in which the Medal is to be awarded; the subject of competition—which shall always be a Botanical subject—to be selected by the Professors of Botany and Natural History, and announced at least eighteen months before the date fixed for receiving essays. (See page 479.)

DOWANHILL PRIZES.—Two prizes, one of £20, and the other of £10, for "Excellence in the Art of Oratory and Declamation, and in the practice of a refined and pleasing Delivery, and in reading the Scriptures," founded in 1865 by Mr. John Buchanan, merchant in Glasgow, as sole Trustee, nominated and appointed by his deceased brother, Mr. Thomas Buchanan, also merchant in Glasgow, and in order to carry out the intentions of his said brother. These prizes are awarded annually to Students of Divinity, at the termination of the third or fourth session of their attendance on the Hall, by the votes of their fellow-students. Competitors must have attended for two sessions an Elocution Class, taught by a master approved by the Senate.[1]

The above foundation is in memory of the late Mr. James Buchanan of Dowanhill, of Ellison MacCallum, his wife, and of Mr. George Buchanan of Stanley, Perthshire, the Father, Mother, and elder Brother of the Founder.

EWING GOLD MEDAL.—In 1828 James Ewing, LL.D., of Levenside, presented the University with £100 for a Gold Medal to be given every second year for the best essay on an historical subject. The Gartmore and Ewing Medals are to be given alternately.

[1] See note under Faculty of Theology, *supra*.

FINDLATER DIVINITY SCHOLARSHIP OR PRIZE.—This Scholarship, consisting of the free annual proceeds of the sum of £1,000 gifted to the Senate by Mr. Alexander Findlater, Dublin, was founded in 1871. The following regulations have been adopted by the Senate:—

1. The Findlater Scholarship shall be awarded annually by competition.

2. At the competition in April, 1908, and thereafter biennially (March, 1910), the examination shall be in Divinity (Biblical and Systematic Theology), Church History, and Biblical Criticism; at the competition in November, 1908, and thereafter biennially (October, 1910), the examination shall be in Hebrew, New Testament Exegesis, and Apologetics.

3. The subjects of examination in each of the departments shall be the same as those prescribed for the Degree of B.D.

4. The examination shall be held at the same time as the examination for the Degree of B.D.

5. The competition shall be open to all students of Divinity in this University who shall complete the ordinary course at the close of the session in which the examination is held, or who shall have completed their course at the close of the session immediately preceding.

6. No candidate who has gained the Scholarship at one examination shall be at liberty to compete for it a second time.

The next competition will take place in March, 1910. Names of Candidates to be given in to the Assistant Clerk (Matriculation Office) on or before 4th March, 1910.

GARTMORE GOLD MEDAL.—In 1788 Mr. Robert Graham of Gartmore presented the University with £100 for the institution of a Prize for the best essay on any subject intimately connected with the nature, foundation, advantages, and support of political liberty. This Prize—a Gold Medal—is open to the competition of all students of the University, and is given biennially. The founder directed that the surpluses should be accumulated till a capital was formed sufficient to found a Bursary. See Gartmore Bursary, p. 367.

ROYAL SCOTTISH GEOGRAPHICAL SOCIETY'S MEDAL.—The Council of the Royal Scottish Geographical Society have resolved to offer annually a Silver Medal to each of the Universities of Edinburgh and Glasgow, to be given in connection with the Lectures on Geography at these Universities, for a special essay on a subject to be settled upon by the Committee of the Society and the Lecturers on Geography.

GLADSTONE HISTORICAL PRIZE.—Founded in 1880 by the Gladstone Club, in commemoration of the election in 1877 of the Right

Honourable William Ewart Gladstone, M.P., as Lord Rector of Glasgow University, and in recognition of his distinguished career as a scholar, author, statesman, and orator. The following are the regulations :—

1. The prize shall be given for the best examination in English History.

2. The examination shall be held biennially.

3. The value of the Prize shall be Twenty Guineas.

4. The competition shall be open to Graduates of Glasgow University of not more than two years' standing from the date of their first graduation. The next competition will take place in January, 1910, and the value will be £25. Names of competitors to be given in to the Assistant Clerk (Matriculation Office) not later than 1st December, 1909.

GLADSTONE MEMORIAL PRIZE.—In November, 1899, the Committee of the Gladstone Memorial Fund resolved to devote the revenue accruing from the surplus of the Fund to the establishment of Gladstone Memorial Prizes to be given in Books at the Universities of Oxford, Cambridge, and London, at the Scottish Universities, and the University Colleges in Great Britain, for special proficiency in History, Political Science, and Economics. In this University the prize, in value Five Pounds, will be awarded annually. Either graduates of this University who have taken the degree of M.A. with Honours, or students presenting themselves for examination for the Degree of M.A. with Honours in Economic Science, may be candidates ; but no student shall be eligible after the expiration of more than six winter sessions from the time of his or her first entering a class qualifying for the Degree of M.A., and no student who has once obtained the prize may compete a second time. The subjects of examination shall be the same as those prescribed for Honours in Economic Science, and the examination shall be held at the same time as the autumn examination for Degrees with Honours in Economic Science. The Prize is awarded by the Senate on the report of the Examiners for Degrees, and it is competent for the Senate to award it to the holder of a Fellowship, or Scholarship, or Bursary. The Prize will be open to competition in October, 1909.

GEORGE HARVEY PRIZE.—Founded in 1874, by the liberality of a donor who has withheld his name, in memory of the late Mr. George Harvey of No. 9 Park Quadrant, Glasgow. Present annual value £14, which is given as a prize in the class of Civil Engineering, to the student who shows, during the session, the greatest proficiency in the department of applied Mechanics and Shipbuilding. Any accumulation of surplus income to be given as a second prize of £5 or £10 in the same department.

Henderson Prize.—In 1850 Mr. John Henderson of Park, merchant in Glasgow, instituted an annual prize of the value of £21 sterling, to be called the "Henderson Prize," for the best Essay on some subject relating to the Divine Authority and Practical Value and Influence of the Sabbath. The Universities Commission (1889), by Ordinance No. 101, altered the conditions and directions affecting this prize. It is now to be awarded for the best essay on a subject to be fixed by the Faculty of Divinity, provided always that in every third year at least, the subject shall relate to the Divine authority and practical value and influence of the Sabbath. The competition is to be open to Masters of Arts of not more than five years' standing, as well as to matriculated students of the University.

Prize in Italian.—A prize of £15 will be awarded each year, during the pleasure of the donors, for the best essay on Italian Literature, handed in on or before the 15th February.

The choice of the subject is free.

The essay may be written in English or in Italian.

Essays written in English will not receive more than 90 marks, the maximum of marks being 100.

Essays written in Italian with grammatical mistakes will not be considered.

This prize is instituted to encourage higher culture rather than the mechanical acquirement of one more language. It will therefore be open only to students or graduates of the Glasgow University who have attended or are attending Honours Classes in Classics, or at least in English or French Literature.

The award will be made by Giovanni Pascoli, of the University of Bologna, Professor Phillimore, and the lecturer on Italian of the Glasgow University.

Valuable books will also be presented by Giovanni Pascoli to the writer of the best essay.

The result will be known by the 15th of March.

It is hoped that the institution of this prize may lead to a further development of the same kind in connection with the University summer vacation courses, which will begin in Florence in 1907 or 1908.

Jamieson Prize.—In 1854 a subscription list was opened for the foundation of a prize or scholarship in Divinity, but the commercial difficulties of the following years prevented the purpose of the promoters being carried out at the time. In 1881 the sum subscribed, amounting, with accumulated interest, to £319 6s. 4d., was handed over to the University, and the Senate resolved to connect it with the name of the Convener of the Committee of subscribers, the Rev. Robert Jamieson, D.D., formerly minister of St. Paul's Church, Glasgow.

The following regulations have been adopted by the Senate :—

1. The Jamieson Prize shall be awarded annually by competition.

2. At the competition in November, 1907, and thereafter biennially (October, 1909), the examination shall be in Hebrew, New Testament Exegesis, and Apologetics ; at the competition in April, 1909, and thereafter biennially (March, 1911), the examination shall be in Divinity (Biblical and Systematic Theology), Church History, and Biblical Criticism.

3. The subjects of examination in each of the departments shall be the same as those prescribed for the Degree of B.D.

4. The examination shall be held at the same time as the examination for the Degree of B.D.

5. The competition shall be open to all students of Divinity in this University who shall complete the ordinary course at the close of the session in which the examination is held, or who shall have completed their course at the close of the session immediately preceding.

6. No candidate who has gained the Prize at one examination shall be at liberty to compete for it a second time.

The next competition will take place in October, 1909. Names of candidates to be given in to the Assistant Clerk (Matriculation Office) on or before 27th September, 1909.

Jeffrey Gold Medal.—Mr. Francis Jeffrey, advocate (afterwards Lord Jeffrey), on his re-election as Lord Rector of this University, in 1821, gave a prize of a Gold Medal and continued to do so annually.

In 1849 Lord Jeffrey presented the University with the sum of £120 for a Gold Medal to be awarded each session to the most distinguished student of the Greek Class.

Kirk Memorial Prize.—A sum of £402 was collected in 1893 by various friends of the late Alexander Carnegie Kirk, LL.D., formerly President of the Institution of Engineers and Shipbuilders in Scotland, for the purpose of founding a prize in his name, in connection with the Naval Architecture Class in the University. The free annual income of the foundation is awarded annually as a prize. The competition is open to students who have, in the session of competition, attended the Senior Class of Naval Architecture, and who are completing the Final Science Examination under Ordinance No. 23, Glasgow No. 2, embracing (*a*) Naval Architecture with Marine Engineering, and (*b*) Practical Work in Ship and Marine Engineering Drawing, the award being determined by the proficiency shown in (*a*) and (*b*). Should two or more candidates be reported equal, the Senate may divide the Prize, or prescribe a further examination. The subscribers have given the

Senate power to convert this Prize into a Bursary, should it be found expedient or advantageous to do so at any future time.

THOMAS LOGAN MEMORIAL MEDAL AND PRIZE.—Mr. David Logan, fruiterer, Glasgow, who died on 19th May, 1886, directed his trustees to pay to the Senate the sum of £500, free of legacy duty, to found a Gold Medal and Prize in memory of his brother, Thomas Logan. The Medal is of the value of £5, and the Prize consists of the balance of the annual proceeds given in money. They are awarded annually in April to the graduate in Arts of the preceding year who obtained the highest marks in the Degree Examinations.

LUKE HISTORICAL PRIZE.—A sum of £150 was collected in 1863 by various friends of the late Mr. George Rankin Luke, in Oxford and Scotland, for the purpose of founding a prize in his name, in connection with the University of Glasgow, where he studied during two years of his brilliant career as a scholar.

The Senate, with the sanction of the promoters of this fund, resolved to employ it to found a biennial Prize, for excelling in a competitive examination on general subjects connected with Ancient History and Literature. The examination to be conducted either altogether in writing, or by combination of writing and *viva voce* questions; and the determination to rest with the Professors of Humanity and Greek, in conjunction, in case of uncertainty, with any one of their colleagues whom they may desire to nominate.

The Prize on the above foundation, in value £10, is given to the student who acquits himself best in an examination in Ancient Greek and Roman History.

The next competition will be held in January, 1911. In addition to historical questions, original passages will be given for translation from the standard authors. The competition is open to all students who shall have attended during session 1909-10 any Greek or Latin Class.

Names of Candidates to be given in to the Assistant Clerk (Matriculation Office) on 1st December, 1910.

MACFARLAN AND COOK TESTIMONIAL PRIZE.—The Macfarlan and Cook Testimonial Prize of Twenty Guineas, instituted in 1847 (along with a similar Prize in the University of St. Andrews), by the friends of the late Principal Macfarlan, D.D. of this University, and Professor George Cook, D.D. of St. Andrews, as a memorial of the services rendered to the Church of Scotland by these eminent clergymen, is bestowed annually on the Theological Student, of three years' standing, who shall pass the best examination in Greek, Moral Philosophy, Hebrew, Ecclesiastical History, and Divinity.

MACKENZIE SCHOLARSHIP OR DIVINITY PRIZE.—This Prize, founded in 1907 under the will of the late Miss Eliza Bennie Mackenzie, Broughty Ferry, in memory of her brother, the late Rev. John Mackenzie, sometime Minister of the Parish of Kettins, of about £25, for an Essay on a prescribed subject connected with the History of the Christian Church or the Forms of Worship thereof or some special Department of the Church's Work, is open to men studying for the Ministry of the Church of Scotland in the Divinity Halls of the Four Scottish Universities or to any Probationer of the Church of Scotland within a year after completion of studies in such institution. Essays of Competitors must be lodged not later than 15th October in each year. For regulations, subject prescribed, etc., apply to Messrs J. & J. Ogilvie, Solicitors, 13 Albert Square, Dundee, the Agents for the Trustees.

MACLEOD MEDAL.—In 1895 Lady Macleod instituted this Gold Medal in memory of her husband, Sir George Husband Baird Macleod, M.D., LL.D., Regius Professor of Surgery in this University from 1869 to 1892. The competition is open only to those who have attended the classes of Systematic and Operative Surgery taught by the Regius Professor of Surgery in the University, and women students are not eligible. The Medal is awarded yearly to the student who most distinguishes himself in the work (written, oral, and practical) of these classes.

SCOTTISH METEOROLOGICAL SOCIETY'S PRIZE.—The Scottish Meteorological Society offers, through its Council, a prize of £20 for the best Essay on a Meterological subject. As an indication of the kind of Essay the Council are prepared to consider, the following subject may be mentioned :—

"A discussion of the extent to which the heat set free when water vapour is converted into the liquid state influences the temperature of the atmosphere, with special reference to the climatology of different parts of Scotland."

The Council, however, wish it to be clearly understood that an Essay on any other subject will be equally eligible.

The following are the conditions on which the prize is offered :—

1. The competition shall be open to regular matriculated students of the four Scottish Universities, including University College, Dundee, who have attended classes of Mathematics and Natural Philosophy, or to graduates of the Scottish Universities who at 1st January, 1910, shall be of not more than five years' standing.

2. The Essays must be lodged with the Secretary to the Scottish Meterological Society, 122 George Street, Edinburgh, on or before 31st March, 1910, with a statement of the Candidate's qualification to compete.

3. All Essays must be legibly written, or typewritten, on one side of the paper only.

4. The Council of the Society shall appoint a referee or referees to report on the Essays, and the decision of the Council, as intimated by the Secretary, shall be final.

5. The Council reserve the right to publish the successful Essay in the Society's Journal. The other Essays will be returned to the competitors.

Muirhead Prizes.—In 1776 Messrs. John Muirhead of Teggetsheugh, and Peter Muirhead, minister of Dysart, brothers of the deceased Mr. George Muirhead, Professor of Humanity in Glasgow College, presented a donation of £100, the interest to be applied in purchase of books to be awarded as prizes to those students attending the Humanity Class who shall be thought most deserving.

George Roger Muirhead Prize.—In 1896 a sum of £100 was bequeathed to the University by Mrs. Elizabeth Lockhart Roger or Muirhead, Glasgow, to found a prize in the Chemistry class in memory of her son, George Roger Muirhead, who studied Chemistry in this University. The free annual income is paid annually to the medallist of the Chemistry class for the year.

Nichol Memorial Prize.—In 1895 the late Mrs. Jack presented the University with the sum of £150 for the purpose of founding a prize, to be called the "Nichol Memorial Prize," in memory of her brother, John Nichol, LL.D., Professor of English Language and Literature in this University from 1862 till 1889, who died in London on 11th October, 1894, and especially in commemoration of the active interest which he took in the teaching of English Literature to women in Glasgow and elsewhere. The free income of the fund is applied annually to providing a first prize for the English Literature Class in Queen Margaret College.

Oriental Society's Arabic Prize.—On 25th October, 1905, the Glasgow University Oriental Society resolved to give in books for the five academic years beginning 1st October, 1905, an annual prize of Three Guineas to the best student or students in Arabic.

Rae Wilson Gold Medal.—(See Cleland and Rae Wilson, p. 450.)

Ramsay Memorial Gold Medal.—This Medal, of the value of £10, was founded in March, 1907, by Emeritus-Professor George Gilbert Ramsay in memory of his uncle, William Ramsay, who was Professor of Humanity in this University from 1831 to 1863. The following are the conditions laid down by the founder, viz.:—The Medal shall be given yearly to the best Student in the Honours Humanity Class, without reference to whether he or she be attending that class for the first or any subsequent year, provided only that he or she have attended regularly throughout the Session, and gone through all the work and examinations of the class, and shall be awarded on the same principle as that on which The Muirhead Prizes have hitherto been awarded, viz.:—"To the Student or Students who have passed the best examination in the Prelections delivered and the subjects read in the Honours Class during the Session"; inclusive, however, of any examinations in unseen work or exercises which may form part of the regular work of the class, but exclusive of any exercises or essays done out of the class or at home. The particular arrangements for the examinations to be determined by the Professor of Humanity for the time being, subject to the approval of the Senate.

The above conditions may be revised by the Senate, if altered circumstances so require, provided that their general spirit be not departed from.

JOHN REID PRIZE.—A Prize of the value of £25 was founded in 1882 by Miss Mary Reid, Renfrew Street, Glasgow, in memory of her brother, the late Mr. John Reid, surgeon, 150 Renfrew Street, Glasgow. The prize will be awarded for the best original research conducted in one of the Hospitals or Scientific Laboratories in Glasgow, bearing on any department of Medical Science. The competition is open to registered students of medicine of not less than two years' standing; and to qualified medical men of not more than two years' standing, who (1) are still attached as *bonâ fide* students to one of the Glasgow Medical Schools, who (2) are not engaged in practice, and who (3) undertake to give up the prize if they enter on practice while holding it. All candidates are required to produce evidence of having attended a regular course of instruction, in one of the medical schools of Glasgow, on *four* of the following subjects:—Medicine, Clinical Medicine, Surgery, Clinical Surgery, Materia Medica, Physiology, Pathology—such course of instruction having been received, in whole or in part, within three years of competing for the prize. The prize may be awarded for one, two, or three years, according to the value of the work done.

Further information may be obtained from Mr. John Hurll, jun., writer, 157 St. Vincent Street, Glasgow.

ROBERT ROSS PRIZE.—The late Robert Ross, Esq., writer, Glasgow, by his Will, dated 1880, bequeathed to the Dean and Council of the Faculty of Procurators, Glasgow, the sum of £500, to be held by them in trust, "to the end that the free annual income thereof shall be applied as an annual prize in the form of a medal, of books, or of money, as the Dean and Council may determine, to a student in each of the Scots Law Class and the Conveyancing Class of the University of Glasgow in equal proportions, such prize to be awarded for eminence displayed, either in the general business of the class or in any other manner in which the said Dean and Council may prescribe."

SCOTT-MACFARLAN GOLD MEDAL.—Founded in 1870 by Miss Scott, daughter of the late Rev. Robert Allan Scott, Vicar of Cranwell, Lincolnshire, in fulfilment of her father's intentions.

Mr. Scott, wishing to encourage the study of Greek in the University of Glasgow, of which he was an alumnus, and from which he obtained an Exhibition to Balliol College, Oxford, in 1825, dedicated to that purpose the sum of £100 for a Gold Medal, to be called the "Scott-Macfarlan Prize for Greek," in memory of Mr. Scott's kinsman, the late Principal Macfarlan, and to be given on the last day of the session in each year to the best scholar in Greek of the session; the medal to be adjudged by the votes of the students of the upper Greek class. As the Jeffrey Medal has long been given to the best student in the senior Greek Class, the "Scott-Macfarlan" Medal is awarded to the best student attending the Honours Greek Class for the first time.

STRAITS SETTLEMENTS GOLD MEDAL.—This medal, subscribed for by former Scottish students resident in the Straits Settlements, is proposed for award in the Universities of Edinburgh, Glasgow, and Aberdeen in rotation. The first award in Glasgow will be made in 1911.

It is proposed that the Medal shall be awarded to the Graduate in Medicine who shall have presented, during the year of award or either of the two years immediately preceding, the Thesis approved for the Degree of M.D. on some subject in connection with Tropical Medicine or Tropical Hygiene which, in the opinion of the Faculty of Medicine, is most worthy of the award.

The Medal for 1911 will be awarded to the writer of the best Thesis on a Tropical subject lodged during the years 1909, 1910, or 1911.

STRUTHERS GOLD MEDAL AND PRIZE.—In 1907, Sir John Struthers, M.D., LL.D., Professor of Anatomy in the University of Aberdeen, founded this Medal and Prize by the following Codicil to his Will:—

"(Fourth) I leave to the University Court of the University of Glasgow the sum of Five hundred pounds sterling for the purpose of founding an Award in Anatomy—the said sum to be invested s a special fund and the interest therefrom applied as hereunder irected. It is not intended to be a Student's Prize in the ordinary sense of that term, but for the purpose of encouraging Original Research or Special Practical Work; the award to be on he following conditions—(*a*) To be awarded for the best original Research or for the best special Dissection or Preparation or series f Dissections or Preparations. It may relate to any part of Anatomy—Human or Comparative—naked eye or microscopical, Embryological or developed. The decision to rest with the Pro-essor of Anatomy in the University. (*b*) The award to be made every second year at such period of the year as the Professor of Anatomy may from time to time fix—the period for the next award being duly announced in the *University Calendar.* The Professor of Anatomy to have it in his power to withhold the Award in any year or years in the event of what is given in being considered by him not such as to merit the award, and in that event or in the event of there being no candidate for the Award, the interest of the fund due at such time may either be added to the sum due when the next award is made or may go to increase the Capital Fund as the Professor of Anatomy may from time to time decide. The Award to be in the form of a Gold Medal with Money Prize consisting of such balance as the interest of the Fund after providing for the Medal may have produced. (*c*) The Award to be open to all students or graduates of the University of Glasgow who are attending or who have at any former time attended the Practical Anatomy Class in the University of Glasgow. (*d*) Any dissections or preparations or microscopical specimens connected with the Research, or for which the Award has been made, to belong to the Anatomical Museum of the University, duly marked with the name of the person by whom the Award was gained. (*e*) As the Degrees of the University are now open to women, it is but just that this Award should be open also to women students and graduates reckoning their attendance on the Practical Anatomy Class at Queen Margaret College as equivalent to attendance on that of the Professor of Anatomy, but the Professor of Anatomy in the University is in all cases to be the sole judge in deciding the Award."

The first award will be made in Session 1910-1911, and the competition will be open to all who have been students in the Class of Anatomy in this University in that or any preceding Session. The choice of subject is, in the meantime, left to candidates, but their attention is specially called to the condition marked (*a*) in the preceding excerpt from the will. No dissertation shall become ineligible for presentation as a graduation Thesis by having been offered for this prize.

UNIVERSITY MEDAL.—The University bestows annually a Silver Medal for an Essay in Mental Philosophy.

WALKER PRIZES.—Four Prizes (consisting of Books or Instruments) to be competed for each year by students of Civil Engineering and Mechanics, founded in 1857 and 1861 by James Walker, Esq., Civil Engineer, LL.D., F.R.S.S.L. and E.

The competition is open to all persons who shall have duly entered themselves as attending the class of Civil Engineering and Mechanics during the current session.

The competitors are examined orally and in writing; and two of the prizes are awarded on the results of the written examinations; the other two by votes of the class.

Watson Historical Prize.—This Prize was founded in January, 1905, by Mr. Robert William Seton Watson, in memory of his father, William Livingstone Watson, of Ayton and Balmanno, who died on 19th May, 1903. The following are the conditions laid down by the donor, viz.:—

1. The Prize shall be called the Watson Historical Prize, and its object is to encourage the study of History and Foreign Languages.

2. The prize shall be offered from time to time in money, and shall never be of the value of less than £50. It shall be offered as soon after that sum is available out of the income of the investment as shall seem advisable to the Senate.

3. The prize shall be adjudged by the Examiners in the Honours Group of History.

4. The prize shall be awarded to the student who shall be djudged to have passed highest in the examination in the Honours Group of History, provided that the candidate shall have reached he standard of a First Class in that examination.

5. Should the prize not be awarded in any year in which it is ffered, the sum available shall be added to the capital sum.

6. The successful candidate shall be bound to spend not less than iree months on the continent of Europe in studying a foreign nguage or in carrying out research in foreign archives—in either ise to the satisfaction of the Professor of History; and he shall ledge himself to avoid, so far as is in his power, hotels, pensions, id other places where English is spoken.

7. The prize shall be paid in two instalments, viz., at first £35 hen the successful candidate sets out for the Continent, and ter the lapse of two months the balance—in each case on the rtificate of the Professor of History.

8. The Donor reserves the right, under advice from the Professor History or the University Court, to readjust the conditions tached, with a view to effect any improvements which may be ggested by experience.

LIST OF BURSARIES, &c., OPEN TO COMPETITION DURING SESSION 1909-10.

A.—FACULTY OF ARTS.

1.—BURSARIES.

No Candidate shall obtain an open Bursary in Arts who shall not have passed the Preliminary Examination in Arts, or have been exempted therefrom in accordance with the provisions of the regulations for Degrees in Arts.

No student who has during any term or period of the academical year attended in any Scottish University any class qualifying in his case for graduation in Arts or Science, shall be eligible to compete for Bursaries of the first year in Arts or Science.

Candidates for Bursaries in Arts which are not awarded by open competition shall present themselves for the Bursary Examination in Arts, and no Bursary shall be awarded to any Candidate who shall not have passed the Preliminary Examination in Arts, or been exempted therefrom in accordance with the provisions of the regulations for Degrees in Arts.

The following is a summary of the regulations relating to the Bursary competition to be held in September, 1909 :—

The subjects of the examination for open Bursaries in Arts and Science shall be Latin, Greek, Mathematics, Applied Mathematics (including Dynamics); English, French, German, and Celtic. Of these subjects candidates may select not more than four in all, two at least being selected from the first mentioned four. The maximum marks assigned to each subject shall be the same. In each subject the examination shall be conducted by means of the papers of the higher standard set in the Preliminary Examination, together with additional papers. Candidates will be expected to obtain at least pass marks in the papers on the higher standard set in the Preliminary Examination, and to take also the additional papers. The latter are intended to test intelligence and ability and the power of the candidates to apply what they have learned. Candidates are not obliged to attempt the whole of any additional paper, but excellence in any part of it may obtain high marks for the whole. The following syllabus shows the nature and scope of the additional papers :—

In *Latin*, and in *Greek*, there will be one paper (2 hours) in Translation and Composition, and one paper (1 hour) of general questions. The latter will have reference to literature, language, history, and geography.

In *Mathematics*, the paper (3 hours) will comprise simple problems, deductions, and calculations based upon the ordinary bookwork of the subject.

In *Applied Mathematics* (including Dynamics), the paper (3 hours) will comprise questions testing the Candidates' apprehension of the elementary dynamical principles of Natural Philosophy. A knowledge of the methods of the calculus will not be required.

In *English*, the paper (3 hours) will contain subjects for essays, and general questions relating to literature, language, history, and geography.

In *French*, and in *German*, there will be one paper (2 hours) in Translation and Composition, and one paper (2 hours) containing subjects for essays in the language.

In *Celtic*, there will be one paper (2 hours) in Translation and Composition, and one paper (2 hours) containing subjects for essays in Scottish (*or* Irish) Gaelic.

N.B.—For the Bursaries open to women students see pp. 341-344.

FOR STUDENTS ENTERING THE FIRST SESSION IN ARTS.

I. FOR SPECIAL DISTINCTION IN PARTICULAR SUBJECTS.[1]

The Bursaries for special distinction are limited to Students of the first year who have passed the Arts Preliminary, and who have not gained a Bursary for general excellence.

1. *Forfar Bursary*, for special distinction in Classics (Latin and Greek), annual value £38, tenable for four years.

2. *MacGrouther Bursary*, for special distinction in Mathematics, annual value £15, tenable for four years.

3. *General Council Bursary*, for special distinction in Applied Mathematics (including Dynamics), annual value £20, tenable for three years.

4. *Foundation Bursary*, for special distinction in English, annual value £20, tenable for four years.

5. *John Clark (Mile-End) Bursary*, for special distinction in French, annual value £30, tenable for four years, for Protestant students, sons or daughters of Protestant parents.

6. *John Clark (Mile-End) Bursary*, for special distinction in German, annual value £30, tenable for four years, for Protestant students, sons or daughters of Protestant parents.

7. *William Gardiner Bursary*, for special distinction in French and German, annual value £14, tenable for two years, with a preference, *cæteris paribus*, for sons of medical men, lawyers, and teachers.

---

[1] For Andrew and Bethia Stewart Bursaries, see p. 409.

II. FOR GENERAL EXCELLENCE.

8. *Blackquarry Bursary*, annual value £14, tenable for four years—open.

9. *Campbell Bursary*, annual value £10, tenable for three or four years—open.

10. *Gartmore Bursary*, annual value £22, tenable for three years—open.

11. *George Grant Bursary*, annual value £40, tenable for three or four years—open.

12. *Malcolm M'Ewen Bursary*, annual value £16, tenable for four years—open.

13. (*Sir Walter*) *Scott Bursary*, annual value £25, tenable for four years—open.

14. *Taylor Bursary*, annual value £10, tenable for four years—open.

15 and 16. *Two King William's Bursaries*, annual value £15 each, tenable for three years—open.

17, 18, 19, and 20. *Four John Clark* (*Mile-End*) *Bursaries*, annual value £30 each, tenable for four years, for Protestant students, sons or daughters of Protestant parents.

21. *Barbour* (*Kilbarchan*) *Bursary*, annual value about £25, tenable for three years, open only to candidates not exceeding 18 years of age from Kilbarchan Public School.

22. *Biggart Memorial Bursary*, annual value £25, tenable for four years, for students preparing for the Ministry of the United Free Church.

23. *Brand Bursary*, annual value £29, tenable for four years, for students preparing for the Ministry of the United Free Church.

24. *Brown-Paton Bursary*, annual value about £17, tenable for three years. Preference to natives of Loudon or Galston, whom failing, to natives of any other part of Ayrshire.

25. *Cowan Bursary*, value for each of first two years £30, for third year £20, for students who have attended Ayr Academy for at least two years before the date of examination. Apply to Mr. J. H. Goudie, Wellington Chambers, Ayr, before the fifteenth day of August.

26. *Davidson Bursary*, annual value £34, tenable for three years. Preference, *cœteris paribus*, to the Founder's relatives, and to natives of Muirkirk, Dalserf, Lesmahagow, and Loudon.

27. *Denny Bursary*, annual value £30, tenable for four years, for students from Dumbarton Burgh Academy. [Tenable in any Faculty.]

28. *Duncan's Bute Bursary*, annual value £38, tenable for four years, for natives of Bute.

29. *James Ewing Entrance Bursary*, annual value £20, tenable for four years, for sons of Glasgow merchants. Apply to W. H. Hill, LL.D., Clerk to the Merchants' House, before the fifteenth day of August.

30. *Forrest Bursary*, annual value £22, tenable for one or more years, for students from New Monkland, Slamannan, or Shotts. See p. 363.

Apply to Mr. G. B. Motherwell, Town Clerk, Airdrie, on or before the twenty-first day of July. [Tenable in any Faculty.]

31. *Forrester Bursary*, annual value about £20, tenable for three years, for natives of Lecropt or Dunblane Parish. Apply to A. B. Barty, LL.B., Writer, Dunblane, before the fifteenth day of August.

32 and 33. *Two Fullarton of Overton Bursaries*, annual value £22 each, tenable for two years, for students under 25 years of age, from the district of Cunninghame, in Ayrshire. Subjects for Examination—Latin, Elementary Mathematics, and English.

34. *Hamilton Educational Trust Bursary*, annual value £20, tenable for three years, open to pupils attending public or State aided schools in the Burgh and Parish of Hamilton. Apply to Mr. Patrick Keith, Writer, Hamilton, before the first day of August.

35. *Hannay Bursary*, annual value about £15, tenable for three years, for students preparing for the Ministry of any Evangelical Religious Denomination in Scotland. Apply to Mr. William Brodie, 77 St. Vincent Street, before the fifteenth day of August.

36 and 37. *Two Glasgow Highland Society's Bursaries*, annual value £20 each, tenable for three years, for students of Highland descent. Apply to Mr. Hugh Brown, C.A., 58 St. Vincent Street, on or before the tenth day of August.

38, 39, and 40. *Three Glasgow City Educational Endowments Bursaries*, annual value £25 each, tenable for four years, for students from public or State-aided schools in Glasgow. Apply to Mr. W. H. Macdonald, Hutchesons' Buildings, Ingram Street, before the fifteenth day of August.

41, 42, 43, 44, and 45. *Five Hutchesons' Educational Trust Bursaries*, annual value £20 each, tenable for four years, for students who have attended for at least two years immediately preceding the competition, and completed the curriculum in the secondary department of Hutchesons' Grammar School. Apply to Mr. W. H. Macdonald, Hutchesons' Buildings, Ingram Street, before the fifteenth day of August.

46 and 47. *Two James Laing Bursaries*, annual value £25 each, tenable for four years, for students of either sex who have been educated for at least three years in a school or schools in Stirlingshire. Apply to Mr. William Jenkins, Writer, Denny, before the fifteenth day of August.

48. *James Lochhead Bursary*, annual value £17, tenable for three years. Preference to students of the name of Lochhead, whose parents are members of the Established Church of Scotland.

49, 50, and 51. *Three M'Crie Bursaries*, annual value £25 each, tenable for four years. For qualifications of candidates see p. 386. Apply to the Town Clerk of Ayr before the fifteenth day of August.

52. *Manderson Bursary*, annual value £15, tenable for three years, for students of either sex who are natives of the Lower Ward of Renfrewshire, or have been educated for three years in a school therein.

53, 54, 55, and 56. *Four Marshall Trust Bursaries*, annual value £30 each, tenable for five years, for students of either sex from public or State-aided schools in Lanarkshire or Stirlingshire. Apply to Mr.

William Bunting, 111 Bath Street, Glasgow, before the fifteenth day of August.

57. *James Paterson Bursary*, annual value £22, tenable for four years, for students preparing for the Ministry of the Baptist Church.

58. *Patrick Bursary*, annual value £32, tenable for four years, for students from Renfrewshire.

59. *Glasgow Perthshire Society Bursary*, annual value £25, tenable for three years, for students connected with the county of Perth. Apply to Mr. George Gray, Junr., 156 St. Vincent Street, Glasgow, before the fifteenth day of August.

60. *Pollock Bursary*, annual value £38, tenable for three years. Preference to candidates educated in Paisley.

61 and 62. *Two Pratt Bursaries*, annual value £20 each, tenable for four years, for students from the parishes of Wiston, Roberton, or Lamington. Apply to Messrs. Fyfe, MacLean & Co., 115 St. Vincent Street, before the fifteenth day of August. [Tenable in any Faculty.]

63 and 64. *Two Ramsay Walker Bursaries*, annual value £15 each, tenable for four years, for students preparing for the Ministry of the Church of Scotland. Preference to kin of Founder; whom failing, to students named Walker; whom failing, to natives of Glasgow.

65. *Stevenson of Dalry Bursary*, annual value £33, tenable for four years, for students preparing for the Ministry of the Church of Scotland. Preference to natives of Dalry in Ayrshire; whom failing, to natives of Bannockburn or St. Ninians in Stirlingshire.

66. *William Whyte Bursary*, annual value £25, tenable for four years, open to students who have attended and completed the curriculum in the secondary department of Hutchesons' Grammar School. Apply to Messrs. Hill & Hoggan, 194 Ingram Street, on or before the fifteenth day of August. [Tenable also in Law or Medicine.]

67, 68, and 69. *Three James A. Paterson Bursaries*, annual value £30, £20, and £10 respectively, tenable for three years, for students preparing for the Ministry of the United Free Church. The subjects of examination are Greek and Hebrew, as detailed at page 402.

70. *Dr. James Paterson Bursary*, annual value £17, tenable for three years. The subjects of examination are Latin, Greek, Hebrew, and Logic, as detailed at page 402.

FOR STUDENTS ENTERING THE SECOND SESSION IN ARTS.

Nos. 9, 13, 14, 23, 26, 28, 32, 33, 46, 47, 65, 67, 68, 69, and 70, in the preceding list.

71. *Park General Council*, annual value £20, tenable for two years—open.

72. *Lorimer Bursary*, annual value £25, tenable for three years. The examination will take place along with the Arts Preliminary Examination in Mathematics, but may embrace higher papers.

73. *Lorimer Bursary*, annual value £25, tenable for three years. Subjects of examination—1. *Logic*: (*a*) Descartes, *Meditations* (Veitch's translation); (*b*) Ferrier, *Lectures on Greek Philosophy*, the Pre-Socratic period. 2. *English Literature*: (*a*) Shakespeare, *Coriolanus*, *The Tempest*; (*b*) Pope, *Essay on Criticism*, *Essay on Man*; (*c*) Burke, *Speech on Conciliation with America*.

74. *John Ferguson Jaffrey Bursary*, annual value £32, tenable for two years. The subjects of examination are the same as for the Lorimer Bursary, No. 73.

FOR STUDENTS IN ARTS WITHOUT RESTRICTION TO A PARTICULAR SESSION.

75. *Monteith Bursary*, annual value about £15, tenable for three years. Open only to natives of Scotland and sons of Scottish parents. Examination in French.

76. *Muir Junior Bursary in Mathematics*, annual value £8 10s., tenable for sessions 1910-11, 1911-12. The appointment will be determined by the results of the written examinations passed in the course of the session 1909-10 by the public students of the Ordinary Class of Mathematics.

77. *Muir Senior Bursary in Mathematics*, annual value £17, tenable for session 1910-11. The appointment will be determined by the results of the written examinations passed in the course of the session 1909-10 by the public students of the Intermediate Honours Mathematical Class.

78. *Lanfine Bursary in Mental Philosophy*, annual value £27, tenable for two years.

79. *Lanfine Bursary in Modern Languages*, annual value £27, tenable for two years.

80. *Lanfine Bursary in English*, annual value £27, tenable for two years.

81. *James Ferguson Bursary in Mathematics and Natural Philosophy*, annual value £100, tenable for two years. Preference, *cæteris paribus*, to natives of Lesmahagow or Muirkirk, or Picton, Nova Scotia, and also to students of the name Ferguson or Weir, or to the kin of the Founder. The examination is the same as that for Honours in Mathematics and Natural Philosophy.

FOR STUDENTS IN ARTS, OR LAW, OR MEDICINE.

82. *Macdonald Bursary*, annual value £17, tenable for four years, for miners under the age of 21 years. Examination in writing, arithmetic, geography, grammar, and History. For the *William Whyte Bursary*, see No. 66.

2.—FELLOWSHIPS, SCHOLARSHIPS, ETC.

83. *George A. Clark Scholarship in Classics*, annual value about £170, tenable for four years. Open to Glasgow Masters of Arts with Honours,

or students presenting themselves for the M.A. degree with Honours in Classics, but no student shall be eligible for the examination after the expiration of more than eight winter sessions from the time of his first entering a class qualifying for the M.A. degree.

84. *John Clark (Mile-End) Scholarship in Classics*, annual value £50, tenable for four years. Open to all Protestant students of good moral character, sons or daughters of Protestant parents, and who have completed their curriculum in Arts in Glasgow University.

85. *William Euing Fellowship in Mental Philosophy*, annual value £100, tenable for three years. Open to Glasgow Masters of Arts.

86. *Armagh Bursary in Mental Philosophy*, annual value £52, tenable for three years in Theology, Law, or Medicine. Open to students who are presenting themselves for the final examination for the degree of M.A. with Honours in Mental Philosophy.

87. *John Clark (Mile-End) Scholarship in Mental Philosophy*, annual value £50, tenable for four years. Open to all Protestant students of good moral character, sons or daughters of Protestant parents, and who have completed their curriculum in Arts in Glasgow University.

88. *William Euing Fellowship in Mathematics and Natural Philosophy*, annual value £100, tenable for one year. Open to Glasgow Masters of Arts.

89. *Eglinton Fellowship in Mathematics and Natural Philosophy*, annual value £65, tenable for three years. Open to Glasgow Masters of Arts, who have graduated in April, June, or November, 1909.

90. *John Clark (Mile-End) Scholarship in Mathematics and Natural Philosophy*, annual value £50, tenable for four years. Open to all Protestant students of good moral character, sons or daughters of Protestant parents, and who have completed their curriculum in Arts in Glasgow University.

91. *Mackinnon Scholarship in Modern Languages*, value £116, tenable for one year, for proficiency in Modern Languages—open to all matriculated students.

92. *Gladstone Memorial Prize* of books to the value of £5 is open to graduates of this University who have taken the degree of M.A. with Honours or to students presenting themselves in October, 1909, for examination for the Degree of M.A. with Honours in Economic Science, but no one whose Arts course began before session 1903-4 is eligible. See p. 454.

93. *Snell Exhibition*, total value £400, tenable for five years. (See p. 443.) Candidates must have been born in Scotland, or must be sons of fathers born in Scotland, and must "have resided as undergraduate students for two years at least in Glasgow College, or for one year in that College and two at least in some other College in Scotland."

94. *Newlands Scholarship*, annual value £83, tenable for four years. Awarded to the successful competitor for the Snell Exhibition.

95. *Mackay-Smith Scholarship in Natural Philosophy*, annual value £48, tenable for two years, for students of Natural Philosophy in session 1908-9 or a previous session. See p. 435.

96. *Gladstone Historical Prize* of £25, open to graduates of Glasgow University of not more than two years' standing from the date of their first graduation.

97. *Sandford Scholarship*, annual value £20, tenable for two years. Open to all matriculated students (not Masters of Arts) who have attended the public Greek classes for not less than two sessions.

98. *Thomas Logan Memorial Medal and Prize* will be awarded in June, 1910, to the graduate in Arts of the year 1909 who shall have obtained the highest marks in the Degree examinations.

DATES OF EXAMINATIONS.

The examinations for Bursaries Nos. 1 to 66 and 71 in the above list will commence on Friday, 10th September, at 9 a.m. The examination papers will be given in the following order, viz. :—

On Friday,	10th	September,	9—11 a.m., English (1st paper).
,,	,,	,,	12—2 p.m., Higher Latin (1st paper).
On Saturday,	11th	,,	9—11 a.m., English (2nd paper).
,,	,,	,,	12—2 p.m., Intermediate and Higher Mathematics (1st paper).
On Monday,	13th	,,	9—11 a.m., Higher Latin (2nd paper).
,,	,,	,,	12—2 p.m., Intermediate and Higher Mathematics (2nd paper).
On Tuesday,	14th	,,	9—11 a.m., Higher Greek (1st paper).
,,	,,	,,	12—2 p.m., French (1st paper).
,,	,,	,,	3—6 p.m., Applied Math. (Dynamics).
On Wednesday,	15th	,,	9—11 a.m., Higher Greek (2nd paper).
,,	,,	,,	12—2 p.m., French (2nd paper).
,,	,,	,,	3—5 p.m., German (1st paper).
On Thursday,	16th	,,	9—11 a.m., German (2nd paper).
On Friday,	17th	,,	9—11 a.m., Celtic (1st paper).
,,	,,	,,	12—2 p.m., Celtic (2nd paper).
,,	,,	,,	3—6 p.m., English (additional paper).
On Saturday,	18th	,,	9—11 a.m., Latin (1st additional paper).
,,	,,	,,	11—12 noon, Latin (2nd additional paper).
,,	,,	,,	2—4 p.m., Greek (1st additional paper).
,,	,,	,,	4—5 p.m., Greek (2nd additional paper).
On Monday,	20th	,,	9—12 noon, Mathematics (additional paper).
,,	,,	,,	2—5 p.m., Applied Math. (additional paper).
On Tuesday,	21st	,,	9—11 a.m., French (1st additional paper).
,,	,,	,,	12—2 p.m., French (2nd additional paper).
,,	,,	,,	3—5 p.m., Celtic (1st additional paper).
On Wednesday,	22nd	,,	9—11 a.m., German (1st additional paper).
,,	,,	,,	12—2 p.m., German (2nd additional paper).
,,	,,	,,	3—5 p.m., Celtic (2nd additional paper).

The examinations for Bursaries Nos. 67 to 70 will be held on Friday, 8th Oct., at 9 a.m., and Saturday, 9th Oct., at 2 p.m.; for Bursary No. 72, on Saturday, 11th September, at 12 noon, Monday, 13th September, at 12 noon, and Monday, 20th September, at 9 a.m.; for Bursaries Nos. 73 and 74, on Friday, 1st October, at 2 p.m., and on Monday, 4th October, at 9 a.m.; for Bursary No. 75, on Tuesday, 14th September, at 12 noon, Wednesday, 15th September, at 12 noon, and Tuesday, 21st September, at 9 a.m. and 12 noon; and for Bursary No. 82, on Thursday, 9th September, at 9 a.m. and 2 p.m.

The examinations for the Bursaries, Scholarships, and Fellowships No. 81 and Nos. 83 to 91 inclusive, in the above list, will be held along with the examinations for Honours in the several departments for the Degree of M.A. in September-October, 1909; for Nos. 93 and 94 in December, 1909, at dates to be fixed hereafter; for No. 95, on Saturday, 2d October, at 9 a.m. and 2 p.m., and Monday, 4th October, at 9 a.m.; for the Prize No. 96 in January, 1910; and for the Scholarship No. 97 in April, 1910.

DATES FOR SENDING IN APPLICATIONS.

Candidates for the Bursaries Nos. 1 to 72 inclusive, and No. 75 are required to give in their names to the Assistant Clerk (Matriculation Office), not later than Tuesday, 24th August; and for Bursaries Nos. 73 and 74, not later than Friday, 3rd September. A schedule, which is to be filled up by each candidate, may be obtained from the Assistant Clerk (Matriculation Office). Candidates for Bursary No. 29 must, besides, give in their names to W. H. Hill, LL.D., Clerk to the Merchants' House, before the fifteenth day of August; for No. 30, to Mr. G. B. Motherwell, Town Clerk, Airdrie, before the twenty-first day of July; for No. 31, to A. B. Barty, LL.B., Writer, Dunblane, before the fifteenth day of August; for No. 34, to Mr. Patrick Keith, Writer, Hamilton, before the first day of August; for No. 35, to Mr. William Brodie, 77 St. Vincent Street, before the fifteenth day of August; for Nos. 36 and 37, to Mr. Hugh Brown, C.A., 58 St. Vincent Street, before the tenth day of August; for Nos. 38 to 45, to Mr. W. H. Macdonald, Hutchesons' Buildings, Ingram Street, before the fifteenth day of August; for Nos. 46 and 47, to Mr. William Jenkins, Writer, Denny, before the fifteenth day of August; for Nos. 49 to 51, to the Town Clerk of Ayr before the fifteenth day of August; for Nos. 53 to 56, to Mr. William Bunting, 111 Bath Street, before the fifteenth day of August; for No. 59, to Mr. Geo. Gray, Jun., 156 St. Vincent St., before the fifteenth day of August; for Nos. 61 and 62 to Messrs. Fyfe, MacLean & Co., 115 St. Vincent Street, before the fifteenth day of August; and for No. 66, to Messrs. Hill & Hoggan, 194 Ingram Street, before the fifteenth day of August.

Candidates for the Fellowships, etc., Nos. 83 to 91 inclusive, No. 81 and No. 95 are required to give in their names to the Assistant Clerk (Matriculation Office), not later than 3rd September; for No. 96 before 1st December, 1909; for Nos. 93 and 94 candidates are expected to inscribe their names in a book kept at the Clerk of Senate's office for the purpose, not later than the 1st November, 1909.

B.—FACULTY OF SCIENCE.

Open to Competition during Session 1909-10.

1. *Strang Bursary*, annual value £20, tenable for three years. Open o students of Engineering Science.

2 and 3. *Two Agricultural College Bursaries*, annual value £40 and 35, tenable for four years, for students of Agriculture.

4. *Donald Cuthbertson Bursary*, annual value £55, tenable for three ears, open to students of Pure Science.

5. *Malcolm M'Ewen Bursary*—see No. 12 under Faculty of Arts.

6. *Lorimer Bursary in Mathematics*—see No. 72 under Faculty of Arts.

7. *Metcalfe Bursary*, annual value £25, tenable for two years. Open students entering the class of Chemistry or of Intermediate Honours athematics.

8. *Lloyd's Register Scholarship*, annual value £50, tenable for three ears. Open to candidates intending to become students of Naval rchitecture whose age does not exceed 23 years. See p. 433.

9. *George Young Bursary*, annual value £38, tenable for one year, r students in the class of Civil Engineering. To be awarded in October, 09, to the eligible candidate with the best record in the First Science xamination.

10. *John Oliphant Bursary*, annual value £35, tenable for three ars, open to Protestants, with a preference to orphans. Candidates ust have passed the whole or some part of their First Science xamination since 1st November, 1907.

11 and 12. *Muir Bursaries in Mathematics*—see Nos. 76 and 77 nder Faculty of Arts.

13 and 14. *Muir Bursaries in Civil Engineering and Mechanics*, each annual value £13, tenable for session 1910-11. See p. 399.

15. *Alexander Donaldson Scholarship in Chemistry*, annual value £44, nable for two years. See p. 425.

16. *James Watt Scholarship*, annual value about £42, tenable for two ars, for a Bachelor of Science of distinction of not more than two ars' standing. See p. 445.

17. *Kirk Memorial Prize* of £14 for students completing Final ience Examination for B.Sc. on the side of Naval Architecture. e p. 456.

18. *Lindsay Burnet Silver Medal*, for a Thesis in Engineering. See ge 448.

The examinations for the Bursaries Nos. 1 to 5 will be held at the ne time as the Arts and Science Preliminary Examinations in ptember, 1909; for No. 6 on Saturday, 11th September, at 12 noon, nday, 13th September, at 12 noon, and Monday, 20th September, 9 a.m.; for No. 7, on Friday, 24th September, at 9 a.m. and 2 p.m., Saturday, 25th September, at 9 a.m., and on Saturday, 2nd October, 9 a.m. and 2 p.m.; for No. 8 on Saturday, 11th September, at 12 noon, on Monday, 13th September, at 12 noon, on Tuesday, 14th September, at 3 p.m., and on Monday, 20th September, at 9 a.m. and 2 p.m. For the examination in Practical Shipbuilding, etc., a date will be fixed.

Names of Competitors to be given in to the Assistant Clerk (Matriculation Office), for Nos. 1 to 6 and for No. 8 on 24th August, for No. 7 on 3rd September, and for No. 16 on 1st October.

For the *Denny Bursary*, the 1851 *Exhibition Science Scholarships*, the *Dobbie Smith Gold Medal*, the *George Harvey Prize*, the *Kirk Memorial Prize*, the *G. R. Muirhead Prize*, and the *Walker Prizes*, see pages 358, 428, 452, 454, 456, 459, 462 respectively.

C.—FACULTY OF MEDICINE.

Section XIII. of University Court Ordinance, No. XXVII. is as follows:

Bursaries open for competition to students entering on their first session of attendance in the Faculty of Medicine shall be tenable only by those students who have passed the Preliminary Examination in Medicine, or who have been exempted therefrom in accordance with the provisions of the Regulations for Degrees in Medicine, and who have not attended any class qualifying for graduation in Medicine: Provided always that the last-mentioned condition shall not be held to exclude a Candidate who may have attended the class of Physics, Chemistry, Botany, or Zoology, otherwise than as part of a graduation course in Medicine.

1. *Mackintosh Bursary*, annual value about £31, tenable for one year. Open to medical students of either sex who have attended the Lectures on Insanity.

2 and 3. *Two Glasgow Highland Society Bursaries*, annual value of each £25, tenable for five years, for students of Highland descent. Apply to Mr. Hugh Brown, C.A., 58 St. Vincent Street, on or before 10th August.

4. *Logan Bursary*, annual value £16, tenable for four years. Open to students entering on their first winter session of medical study. See p. 383.

5. *John Oliphant Bursary*, annual value £35, tenable for six years, open to students entering upon the first winter session of their medical curriculum.

6. *Lorimer Bursary*, annual value £25, tenable for three years. Open to medical students entering on their second winter session.

7. *William Gardiner Bursary*, annual value £14, tenable for two years, will be awarded in October, 1909, for proficiency in Physiology, Chemistry, and Physics. See page 366.

8. *Rainy Bursary*, annual value £20, tenable for two years. Open to students entering on their fourth session of medical study. See p. 406.

9 and 10. *Two James A. Paterson Bursaries*, annual value £25 and £20 respectively, tenable for four years. Open to students entering on their first or second session of medical study. Examination in Mathematics and Applied Mathematics (including Dynamics).

11. *John Monteith Bursary*, annual value about £21, tenable for two years, will be awarded in November to the student who gains the highest number of marks in Anatomy and Physiology in March and October, 1909.

12. *Andrew Weir Bursary*, annual value £18, tenable for one year, will be awarded in November in accordance with results of Second and Third Professional Examinations.

13. *Junior Arnott Prize*, of about £15, for an examination in General Physics, open to students of the first and second years of their medical studies.

14. *Senior Arnott Prize*, of £25, for an examination in Physiological Physics, open to students of the third and fourth years of their medical studies.

15. *Brunton Memorial Prize*, of about £10, is given to the most distinguished graduate in Medicine of the year.

16. *Joseph Coats Memorial Scholarship*, £85 in value, tenable for one year. See p. 424.

For the *Denny*, the *Hutchesons' Educational Trust*, the *Pratt*, the *William Whyte*, the *Armagh*, and the *James Ferguson Bursaries*, also tenable by students of Medicine, see Nos. 27, 41 to 45, 61, 62, 66, 86, and 81, under Faculty of Arts. For the *Andrew and Bethia Stewart Bursaries*, see p. 409; and for the *M'Cunn Research Scholarships* tenable by Graduates, see p. 434.

Dates of Examinations.

The examinations for the Bursary No. 1 in the above list will be held in June, for Nos. 2 and 3, at the same time as the Medical Preliminary, and on the same papers; for Nos. 4 and 5, the examination will consist of the Science Preliminary Papers (dates at p. 471) in English (two papers), Mathematics (two), Greek, *or* French, *or* German (two), Latin (two, *or* the Lower Latin Paper on Friday, 10th Sept., at 3 p.m.)—no "additional" papers are to be taken; for No. 6 on Monday, 27th September, at 9 a.m. and 2 p.m., on Tuesday, 28th September, at 9 a.m.; for Nos. 9 and 10, on Saturday, 11th September, at 12 noon; Monday, 13th September, at 12 noon; Tuesday, 14th September, at 3 p.m.; Monday, 20th September, at 9 a.m. and 2 p.m.; and for the Prizes Nos. 13 and 14 on Saturday, 2nd October, at 2 p.m.

Dates for sending in Applications.

Candidates for the Bursaries Nos. 2 to 10 are required to give in their names to the Assistant Clerk (Matriculation Office), not later than 24th August; and for Prizes 13 and 14, and the Scholarship, No. 16, not later than 3rd September.

D.—FACULTY OF LAW.

1. *Merchants' House Bursary*, annual value £25, tenable for three years, open to students entering on their first session of attendance on the classes in the Faculty of Law. Candidates are required to give in

their names to the Assistant Clerk (Matriculation Office), not later than 24th August, and also to the Clerk of the Merchants' House, not later than 15th August.

Competitors for No. 1 are required to attend the Arts Preliminary and Bursary Examination. For subjects and times see pp. 464, 471. See also p. 395.

2. *Robert Macfarlane Bursary*, annual value about £33, for proficiency in Scots Law, tenable during session 1910-11. See p. 389.

3. *Robert Macfarlane Bursary*, annual value about £33, for proficiency in Conveyancing, tenable during session 1910-11. See p. 390.

4. *Andrew Cunninghame Bursary*, value about £35, tenable for one year, for proficiency in Scots Law. See p. 357.

5. *Andrew Cunninghame Bursary*, value about £35, tenable for one year, for proficiency in Conveyancing. See p. 357.

6. *Robert W. Robertson Scholarship*, value about £30, for excellence in the examinations for the Degree of LL.B. See p. 439.

Names of Candidates for the Bursaries Nos. 2 to 5 are to be given in to the Assistant Clerk (Matriculation Office), not later than 2nd March.

For the *Denny*, the *Hutchesons' Educational Trust*, the *Pratt*, the *William Whyte*, the *Armagh*, and the *James Ferguson Bursaries*, also tenable by students of Law, see Nos. 27, 41 to 45, 61, 62, 66, 86, and 81, under Faculty of Arts. For the *Andrew and Bethia Stewart Bursaries*, see p. 409.

E.—FACULTY OF THEOLOGY.

Open to Competition during Session 1909-1910.

1. *John Adam Bursary*, annual value £18, tenable for four years. Open to students of Theology of the first year.

2. *Black Bursary*, annual value £42, tenable for three years. Open to students of Theology of the first year who are qualified as specified at p. 349.

3. *Hastie Bursary*, annual value £27, tenable for three years. Open to students of Theology of the first year who are Masters of Arts of any Scottish University, or who have passed all the examinations for graduation in Arts.

4. *Lorimer Bursary*, annual value £25, tenable for three years. Open to students entering the Divinity Hall.

5. *Matthew A. Muir Bursary*, annual value £34, tenable for three years. Open to students of Divinity of the first year who hold a degree in Arts of any Scottish University, or who have passed their examinations in four subjects, taken out of at least two departments, for graduation in Arts.

6. *Notman Bursary*, annual value £18, tenable in the Divinity course.

7. *William Muir Divinity Bursary*, annual value £25, tenable for two years. Open to candidates who have passed the examination of the Examining Board for entrance to the Divinity Hall of the University. Apply to Mr. W. H. Macdonald, Hutchesons' Buildings, Ingram Street, not later than 27th September.

8. *John Ferguson Bursary*, annual value £56, tenable for three years. Open to Graduates in Arts of any University in the United Kingdom who are entering the Divinity Hall with a view to the Ministry of the Church of Scotland. See p. 362. Applications to be sent to the Clerk of Senate before 27th September, 1909.

9. *The Jamieson Prize*, value about £10 sterling, for examination in the subjects of the first department for the degree of B.D. Open to students who shall complete the ordinary curriculum of Theological study in the University of Glasgow at the close of session 1909-10, or who shall have completed their course at the close of the session immediately preceding.

10. *The Findlater Scholarship Prize*, value about £38 sterling, for examination in the subjects of the second department for the degree of B.D. Open to students who shall complete the ordinary curriculum of Theological study in the University of Glasgow at the close of session 1909-10, or who shall have completed their course at the close of the session immediately preceding.

11. *The Macfarlan and Cook Testimonial Prize*, of £21, open to Theological students of three years' standing. Examination in Greek, Moral Philosophy, Hebrew, Church History, and Divinity.

12 and 13. *Dowanhill Prizes*, one of £20, and the other of £10, for Elocution. Open to students of Divinity of the third year.

For the *Armagh* and the *James Ferguson Bursaries*, also tenable by students of Divinity, see Nos. 86 and 81 under Faculty of Arts.

DATES OF EXAMINATIONS.

The examinations for Nos. 1 to 7 inclusive, in the above list, will be held on Friday, 8th October, and Saturday, 9th October, at 9 a.m. each day; for No. 9 on Wednesday, 6th October, and Thursday, 7th October, 1909, at 9 a.m. each day; and for No. 10 on Friday, 18th March, and Saturday, 19th March, 1910, at 9 a.m. each day.

SUBJECTS OF EXAMINATION.

Candidates for Bursaries Nos. 1 to 7 inclusive may select any seven out of the nine subjects in the following list, but candidates for No. 1 must not in making their selection leave out any of the first six subjects:—

LATIN.—Virgil, *Aeneid* VI.; Translation from English into Latin.

GREEK.—The Gospel according to Luke.

LOGIC.—Jevons, *Elementary Lessons in Logic*.

MORAL PHILOSOPHY.—Muirhead, *Elements of Ethics*.

MATHEMATICS.—Euclid, Books I., II., III. Algebra to Quadratic Equations, inclusive.

NATURAL PHILOSOPHY.—Deschanel, *Physics*, Part I.

ENGLISH.—Morley, *First Sketch of English Literature*, Chapter XIII. A short essay will be prescribed.

HEBREW.—Book of Genesis.

HISTORY.—Robertson's *History of Charles V.*, omitting Book I.

The subjects of examination for No. 9 are the same as for the first department, and for No. 10 are the same as for the second department of the Degree of Bachelor of Divinity.

The subjects of examination for the Prize No. 11 for Session 1909-10 are as follows:—

GREEK.—Sophocles, *Antigone*.

DIVINITY.—Biblical Theology.—The Epistle to the Hebrews.

HEBREW.—Amos and Micah.

CHURCH HISTORY.—History of the Church in England, Scotland, and Ireland from 1760 to 1820.

MORAL PHILOSOPHY.—Butler, *Three Sermons on Human Nature*.

DATES FOR SENDING IN APPLICATIONS.

Candidates for Nos. 1 to 7 inclusive and No. 9 are required to give in their names to the Assistant Clerk (Matriculation Office), not later than 27th September, 1909; for No. 10, not later than 4th March, 1910; for the Prize No. 11 to the Professor of Divinity, not later than 1st November, 1909; and for the Prizes Nos. 12 and 13, to the Professor of Divinity, not later than 4th March, 1910.

Applications for No. 8, with full particulars, to be sent to the Clerk of Senate before 27th September, 1909.

5.—PATRONAGE BURSARIES, 1909-10.

A.—FACULTY OF ARTS.

Appointments to the following Bursaries in the gift of Patrons, including bodies corporate and not corporate, fall to be made before the opening of session 1909-10. Candidates are required to present themselves for the Arts Preliminary Examinations, and for this purpose their names must be given in to the Assistant Clerk (Matriculation Office), on or before 24th August.

1. *Adamson Bursary*, see page 345.
2. *Dundonald Bursary*, see page 360.
3. *Hamilton Bursary*, see page 371.
4. *Williams Bursary*, see page 415.

B.—FACULTY OF THEOLOGY.

1. *Dundonald Bursary*, see page 360.
2. *Gilhagie and Struthers Bursary*, see page 369.
3. *Hamilton Bursary*, see page 371.

N.B.—For information regarding the Auld Bursary and the Sharp Bursary in the gift of the Presbytery of Perth for students preparing for the ministry of the Church of Scotland, apply to the Clerk of the Presbytery, the Rev. John Ferguson, B.D., Aberdalgie, Perth.

6.—*UNIVERSITY PRIZE ESSAYS.*

FOR SESSION 1909-10.

1. In Mental Philosophy, the UNIVERSITY SILVER MEDAL, for the best essay on "The Subjective and the Objective Tendencies in Recent Philosophy." All students of the Classes of Logic, Moral Philosophy, or English Literature, in Session 1908-9 or 1909-10, may be competitors.

2. THE GARTMORE GOLD MEDAL, for the best essay on "The Morality of States and of Individuals." All matriculated students of the University in Session 1909-10 may be competitors.

3. A COULTER PRIZE OF FIVE POUNDS, for the best essay on "The Contribution of English Thinkers to the Philosophy of Aesthetics."

4. A COULTER PRIZE OF FIVE POUNDS, for the best Study of "M. Cornelius Fronto."

For the Coulter Prizes all matriculated students of the University in session 1909-10 may be competitors.

5. The HENDERSON PRIZE OF TWENTY GUINEAS, for the best essay on "The Ethics of Socialism." All matriculated students of the University in Session 1909-10, and all Masters of Arts who graduated in November, 1904, or thereafter, may be competitors.

6. THE DOBBIE-SMITH GOLD MEDAL, for the best description and illustration of the external characters, structure, development, and processes of reproduction, with drawings and specimens, of any one of the following plants, viz., the common mustard, the sycamore, and barley. All matriculated students of session 1909-10 may be competitors. Essays to be given in to the Principal on or before 1st December, 1909.

The essays, with the exception noted above (No. 6), must be given in to the Principal on or before Saturday, 30th October, 1909, after which day none can be received. Each must be distinguished by two mottoes, and accompanied by a sealed letter bearing on the outside the same mottoes, and containing a declaration subscribed by the author that the essay is entirely of his own composition. All quotations in the essays must be carefully marked, and accurate references to their respective authorities given in the notes. The Senate reserves the power of withholding the prize for any subject, if none of the essays on that subject reaches a sufficiently high standard of merit.

EWING GOLD MEDAL IN SESSION 1910-11.

The subject for the essay in the competition for the Ewing Gold Medal, open to matriculated students in Session 1910-11, will be, "Ireland under King Charles I., with Special Reference to the Administration of the Earl of Strafford."

DOBBIE-SMITH GOLD MEDAL IN SESSION 1910-11.

The subject will be the same as that given above. Essays to be given in to the Principal on or before 1st December, 1910.

XII.—HONOURS LIST.

NAMES OF GRADUATES WITH HONOURS SINCE THE YEAR 18

BACHELORS OF ARTS (B.A.).

			Honourable Distinction.	Highest Distinctio
1827	[1] Alfred Day, . . .	England,	. . . . .	Classics. Mental Philosoph
1831	James Halley, . .	Scotland,	. . . . .	Classics. Mental Philosoph
1838	William Makellar, .	,,	Classics.	
,,	Francis Tucker, . .	England,	Classics.	
1840	[1] John Daniel Morell, .	,,	Classics. Mental Philosophy.	
1842	[1] Nathaniel Haycroft, .	,,	Classics. Mental Philosophy.	
1843	[1] David M'Lauchlan, .	Scotland,	Classics. Mental Philosophy.	
1852	Samuel Crusha Sarjant,	England,	. . . . .	Classics. Mental Philosop
1856	[1] Joseph David Everett, .	,,	Classics. Mental Philosophy.	
,,	David Johnston, . .	,,	Mental Philosophy.	
1857	Wm. Thomson Johnston,	Scotland,	. . . . .	Classics.
,,	Andrew Moody, . .	,,	Mental Philosophy.	
,,	[1] William Ralph Pattison,	,,	Classics. Mental Philosophy.	
1858	John MacLeod, . .	,,	. . . . .	Mental Philosoph
,,	[2] Peter Sinclair Menzies, .	,,	Classics.	
1859	[1] George Porter, . .	,,	Classics. Mental Philosophy.	
,,	[1] Joseph Gardner, . .	,,	Mental Philosophy.	
1860	[1] Richard Vary Campbell,	,,	. . . . .	Mental Philosoph
,,	[1] Daniel Munro, . .	,,	Classics.	
1861	[1] John M'Lean, . .	,,	Classics. Mental Philosophy.	
,,	[1] Thomas Carruthers, .	,,	Classics. Mental Philosophy.	
,,	[1] William Stewart, . .	,,	Classics. Mental Philosophy.	
,,	[3] David Thomas, . .	,,	Mental Philosophy.	
,,	[1] George Matheson, . .	,,	Mental Philosophy.	
,,	[1] Henry William Bell, .	India,	Mental Philosophy.	
,,	[1] Thomas Robinson, .	England,	Mental Philosophy.	

[1] Graduated M.A. in the following year. [2] Graduated M.A. three years later.
[3] Graduated M.A. two years later.

MASTERS OF ARTS (M.A.).

			Honourable Distinction.	Highest Distinction.
1827	George Samuel Evans, .	England,	. . . .	Classics. Mental Philosophy.
,,	William Cooper, . .	Scotland,	Classics. Mental Philosophy	
1828	William Acworth, .	England,	. . . .	Classics. Mental Philosophy.
,,	Samuel Macurdy Greer,	Ireland,	. . . .	Classics. Mental Philosophy.
,,	James Rankine, . .	Scotland,	Classics. Mental Philosophy.	
,,	William Baird, . .	,,	Classics. Mental Philosophy.	
,,	John Reid, . . .	England,	Physical Science.	
,,	Alexander Ure, . .	Scotland,	Physical Science.	
1831	David L. Arnot, . .	,,	. . . . .	Classics.
,,	John Jenkins, . .	Wales,	Classics.	
,,	Robert Cotton Mather, .	England,	Classics.	
,,	Neil M'Michael, . .	Scotland,	Physical Science.	
1832	Andrew Borland Parker,	,,	. . . . .	Classics.
1836	John Cunningham, .	,,	. . . . .	Physical Science.
,,	William Fulton, . .	,,	Classics. Mental Philosophy	
1837	Richard Shaen, . .	England,	Physical Science.	
,,	Thomas Elliot Richardson,	,,	Physical Science.	
,,	John Blair, . . .	Ireland,	Physical Science.	
,,	William Cuthell, . .	Scotland.	Physical Science.	
1840	Duncan Harkness Weir,	,,	Physical Science.	
,,	James Thomson, . .	Ireland,	Physical Science.	
,,	John Buchanan, . .	Scotland,	Physical Science.	
1841	William Arthur Jones,	Wales,	Classics. Mental Philosophy.	
1842	Alexander Grierson, .	Scotland.	Physical Science.	
,,	John Davies, . .	England,	Classics. Mental Philosophy.	
1843	John Trafford, . .	,,	Classics. Mental Philosophy.	
,,	David Duff, . . .	Scotland,	Physical Science.	
1844	John Morgan, . .	,,	Physical Science.	
,,	John Thomson, . .	Ireland,	Physical Science.	
,,	William Turnbull Ker, .	Scotland,	Physical Science.	
,,	Richard Tomlinson, .	England,	Classics. Mental Philosophy.	
1846	Robert Graham, . .	Scotland,	Physical Science.	
1847	William John Steele, .	Ireland,	Physical Science.	
,,	James Porter, . .	,,	Physical Science.	
1848	Adam Milroy, . .	Scotland,	Classics. Mental Philosophy.	
,,	Walter David Jeremy, .	England,	Classics. Mental Philosophy.	

			Honourable Distinction.	Highest Distinction.
1849	John Kerr,	Scotland,	. . . . .	Physical Science.
,,	George M'Queen,	,,	. . . . .	Physical Science.
,,	Henry Martyn Barker,	England,	. . . . .	Classics. Mental Philosophy.
,,	John Newton Langley,	,,	. . . . .	Classics. Mental Philosophy.
1850	Alexander Walker,	Scotland,	Classics. Mental Philosophy.	
,,	Horatio Lindsay Taplin,	England,	Classics. Mental Philosophy.	
,,	Robert Masters Theobald,	,,	Classics. Mental Philosophy.	
1851	Carstairs Douglas,	Scotland,	Physical Science.	
,,	Daniel Davies Jeremy,	England,	Classics. Mental Philosophy.	
1852	Thomas Logan,	Scotland,	Physical Science.	
,,	James Wylie Johnston,	,,	Classics. Mental Philosophy.	
1853	Charles Abercromby Smith,	,,	. . . . .	Physical Science.
,,	William Jack,	,,	. . . . .	Physical Science.
,,	Edward John Gibbs,	England,	. . . . .	Classics. Mental Philosophy.
1856	James Galbraith,	Scotland,	Physical Science.	
,,	John Murray,	,,	Physical Science.	
1857	Joseph David Everett,	England,	. . . . .	Physical Science.
,,	George Monro Grant,	Nova Scotia,	. . . . .	Mental Philosophy.
,,	David Herbert,	Scotland,	Mental Philosophy.	
,,	Neil Macpherson,	,,	Classics. Mental Philosophy.	
1858	John Weir,	,,	Mental Philosophy.	
1859	Robert Whyte,	,,	Mental Philosophy.	
1860	Walter Roberts,	,,	Mental Philosophy.	

MASTERS OF ARTS (M.A).

Ordinances No. 14, Sections vi., vii., viii. ; No. 18, Section iii. (1858).

			Class of Honours and Department.			
			Classics.	Mental Philos.	Math. & Nat. Phil.	Natural Science.
1862	John Ferguson,	Scotland,	...	...	...	I
1866	John Mann,	,,	I	...	...	...
,,	John Fergusson,	,,	...	II	...	...
1867	William E. Grigsby,	England,	II	...	...	...
,,	James Smith,	Scotland,	...	...	I	...
,,	William Ross,	,,	...	...	II	...
1868	Robert Stewart,	,,	...	I	...	...
,,	John Wilson,	,,	...	I	...	...

			Class of Honours and Department			
			Classics.	Mental Philos.	Math. & Nat. Phil.	Natural Science
1869	Favour James Greg.	Scotland,	...	I	...	...
,	Adam Semple,	,,	..	I	...	...
,,	Joseph Loudon,	,,		...	II	...
,,	James M'Intosh,	,,		I	...	...
1870	John Cross,	U.S.A.,	I	I	...	...
,,	Matthew M. Dickie,	England,	II	I	...	...
,,	James Orr,	Scotland,	...	I	...	..
,,	Robert A. Sinclair,	,,	..	II	.	...
,,	James D. H. Dickson,	,,	...	...	II	...
,,	Dugald M'Kichan,	,,	..	..	II	..
1871	William S. Fleck,	,,	..	I	...	...
,,	William Oliver,	Wales,		II	...	..
,,	John E. H. Thomson,	Scotland,	...	II	...	
,,	Colin R. M'Clymont,	,,	.	I	..	..
,,	Charles S. Dickson,	,,	...	II	II	...
1872	William Hamilton,	,,	...	I	..	...
,,	John Watson,	,,	...	I	.	..
,,	Zachary M. H. Ross,	,,	...	II	...	...
,,	Archibald Russell,	,,	...	II	..	...
,,	William G. Miller,	,,	.		II	...
,,	John M. Brown,	,,	...	I	..	..
,,	Alexander S. Macphee,	,,		I		
,,	James C. MacTaggart,	,,		..	I	
,,	James Henderson,	,,	...	.	II	...
1873	William Bathgate,	,,	I			
,,	John M'Cunn,	,,		I		
,,	Thomas L. Galloway,	,,	.		I	
,,	David Hunter,	,,	II	I		
,,	Robert Harvey,	,,	I	..		.
,,	Thomas H. Miller,	,,			I	..
,,	Buchanan Blake,	,,		II	.	...
,,	James Arthur,	,,	...	..	II	...
1874	James Bonar,	,,	I	I	...	...
,,	James G. Fraser,	,,	I		...	...
,,	Alexander F. Fraser,	,,		I	...	...
,,	John Wilson Reid,	,,	I	..	II	...
,,	Colin Campbell,	,,	II	I	...	..
,,	James Thomson,	,,		I	...	...
,,	Hugh Hart Currie,	,,	II	...	...	.
,,	James MacKay,	,,	.	II	...	...
1875	Benjamin F. C. Costelloe,	Ireland,	II	I	...	..
,,	William Yuill King,	Scotland,	I	...	...	...
,,	William Patrick,	,,		I	..	...
,,	John Patrick,	,,	II	...	.	...
,,	James S. Russell,	,,	.	...	I	..
,,	John C. Watt,	,,		...	I	...
,,	John B. Douglas,	England,	II	...	...	..
,,	Neil D. MacLachlan,	Scotland,	..	II	...	..
,,	James Johnston Dobbie,	,,	...	.	...	I
1876	James Lambie,	,,	.	I	...	...
,,	Ebenezer B. Speirs,	,,		I	...	.

			Class of Honours and Department.			
			Classics.	Mental Philos.	Math. & Nat. Phil.	Natural Science.
1876	Islay F. Burns,	Scotland,	II	...	...	...
,,	Robert MacLehose,	,,	...	II	...	...
,,	Joseph Conn,	,,	...	...	II	...
,,	Robert H. Pinkerton,	,,	...	...	II	...
,,	David Wilson,	,,	...	...	II	...
,,	John P. Mitchell,	,,	...	I	...	...
,,	William M. Rankin,	,,	...	I	...	...
,,	Andrew Gray,	,,	...	...	II	...
1877	Wallace M. Lindsay,	,,	I	II	...	...
,,	Alexander S. Wilson,	,,	...	...	...	I
,,	James Kidd,	,,	...	I	...	...
,,	Thomas B. Kilpatrick,	,,	...	I	...	...
,,	Mungo W. M'Callum,	,,	...	II	...	...
,,	William Allan,	,,	...	...	II	...
,,	James Arthur,	,,	...	...	II	...
1878	Robert Mackintosh,	,,	II	I	...	...
,,	John Edgar,	,,	I	...	...	...
,,	John M. Dodds,	,,	...	...	I	...
,,	David W. Forrest,	,,	...	II	...	...
,,	Alexander Isdale,	,,	...	I	...	...
,,	Lewis A. Muirhead,	,,	...	I	...	...
,,	James Wilson,	,,	II	...	II	...
1879	John Wilson Marshall,	,,	I	II	...	...
,,	Francis Wm. Clark,	,,	II	II	...	...
,,	Henry Jones,	Wales,	...	I	...	...
,,	William T. Bankhead,	Scotland,	...	II	...	...
,,	Andrew Rutherfurd,	,,	...	II	...	...
,,	James Thomson,	Ireland,	...	...	II	...
,,	James Denney,	Scotland,	I	I	...	...
,,	James Kippen Duff,	,,	I	...	...	...
,,	Robert Tannahill Younger,	,,	...	II	...	...
,,	William L. Macindoe,	,,	..	...	II	...
1880	Alexander Gregory,	,,	II	...	...	...
,,	Thomas Gregory,	,,	I	I	I	...
,,	Alexander N. Cumming,	,,	II	II	...	...
,,	Hugh Young Reyburn,	,,	II	II	...	...
,,	John G. A. Dow,	,,	II	...	...	...
,,	John Henderson,	,,	..	II	...	...
1881	Cecil J. Swan,	,,	II	...	...	...
,,	Francis H. Stead,	England,	II	I	...	...
,,	David S. Adam,	Scotland.	...	I	...	...
,,	William Granger,	,,	...	I	...	...
,,	Robert F. Muirhead, B.Sc.,	,,	...	...	I	...
,,	Alexander Russell,	,,	...	...	I	...
,,	Patrick H. Aitken,	,,	II	...	...	...
,,	Alexander Anderson,	,,	II	...	...	...
,,	Robert T. Loudon,	,,	...	II	...	...
,,	Robert Veitch,	England,	...	II	...	...
,,	James Maclay,	Scotland,	...	...	II	...
,,	John Stuart,	,,	...	...	II	...
,,	James Hamilton,	,,	...	...	II	...

			Class of Honours and Department.			
			Classics.	Mental Philos.	Math. & Nat. Phil.	Natural Science
1882	James A. M'Callum, . .	Scotland,	...	I	...	.
,,	John H. Fullarton, . . .	,,	...	. .	...	I
,,	Charles P. Blair, . . .	,,	...	II	...	.
,,	James M. Dodds, . . .	,,	I		...	...
,,	John S. MacKenzie, .	,,	.	I	. .	...
,,	William Smart, . .	,,	.	I	. .	...
,,	John Weir, ...	,,	.		I	. .
,,	John Gray, ...	,,	.	II	...	.
,,	Charles Steele, . . .	,,	.	II	. .	..
1883	John Aitken Orr, . .	,,	.	I	.	...
,,	Alexander Robinson, .	,,		I	.	...
,,	Lewis Hughes,. . . .	Wales,		I	.	.
,,	Francis Anderson, . . .	Scotland,	.	I	.	...
	Wm. S. M'Kechnie, . . .	,,	.	I	.	..
,,	William Muir, ...	,,		I		...
,,	James W. Inglis, . .	,,	II	...	.	.
,,	Patrick H. Hutchinson, . .	Ireland,	II		.	.
,,	Robert A. Moody, . . .	Scotland,	II		.	.
,,	William T. Mitchell, . . .	,,			II	. .
1884	Andrew A. Mitchell, . . .	,,	I	.	.	...
,,	James M'Millan, . .	,,	I		.	...
,,	Archd. S. Laidlaw, . .	,,		I	.	.
	John Mack, ...	,,			I	...
,,	William Clark, ...	,,	II		.	...
,,	John Struthers, . . .	,,	II	I	...	...
,,	Archibald M'Laren, . . .	,,	I	.	...	...
,,	John Adams, ...	,,		I	...	.
,,	James Barr, . . .	,,	...	I	...	.
,,	Gavin Lambie,. . . .	,,	.	I	...	...
,,	Robert M. Wenley, . . .	,,	. .	I	...	...
,,	George G. Henderson, . .	,,		. .	...	I
,,	Campbell N. Moody, . .	,,	II	II	...	...
,,	Hugh Stevenson, . . .	,,	.	II	...	...
,,	James Strachan, . . .	,,		..	II	...
,,	Alex. B. Symington, . .	,,	II	.	...	...
1885	John Lee, ...	,,	I	..	..	...
,,	James Buchanan, . . .	,,	...	...	I	...
,,	Norman Fraser, . . .	,,	.	...	I	...
,,	James P. M'Laren, . . .	,,	II	.	. .	..
,,	William Binnie, . . .	,,	...	II	...	...
,,	David Frew, ...	,,	...	II	...	...
,,	Richard Glaister, . . .	,,	...	II	...	...
,,	David Houston, ...	,,	...	II	...	...
,,	Walter Wingate, . . .	,,	...	...	II	...
,,	William M. Mackay, . . .	,,	...	I	...	...
,,	Andrew F. Smith, . .	,,	...	I	...	...
,,	Alex. L. Watson, . . .	,,	II	...	...	...
,,	Archibald J. Macnicol, . .	,,	.	...	II	...
1886	Charles F. Fleming, . .	England,	...	I	...	...
,,	Wellstood A. Watt, . .	Scotland,	...	I	..	.
,,	John Dougall, ...	,,	.		I	...

			Class of Honours and Department.			
			Classics.	Mental Philos.	Math. & Nat. Phil.	Natural Science.
1886	John M'Cowan, B.Sc., . .	Scotland,	...	...	I	...
,,	William H. Carslaw, . .	,,	...	...	II	...
,,	Magnus M'Lean, . . .	,,	...	...	II	...
,,	John A. Cramb, . . .	,,	I	...	...	...
,,	Robert A. Duff, . . .	,,	...	I	...	...
,,	William Johnston, . . .	,,	...	II	...	...
,,	James Macmillan, . . .	,,	...	...	II	...
,,	Robert A. Nicolson, . .	,,	...	...	II	...
1887	James Finlayson, . . .	,,	...	...	II	...
,,	James Gifford, . . .	,,	...	II	...	...
,,	Charles Mackay Gordon, .	W. Indies,	...	I	...	...
,,	David Smith, ...	Scotland,	I	...	...	...
,,	John Watson Bryson, . .	,,	...	I	...	...
,,	Robert Gardner, . . .	,,	...	II	...	...
,,	James Gilfillan, . . .	,,	...	I	...	...
,,	Daniel Kirkwood, . . .	,,	...	II	...	...
,,	Alexander Lucas Taylor, .	,,	II	...	...	...
,,	John Thomson, . . .	,,	...	...	II	...
1888	John Esslemont Adams, . .	,,	II	...	...	...
,,	Archibald Lamont, . . .	,,	...	II	...	...
,,	Arthur David Millar, . .	,,	I	...	...	...
,,	John Dickson Sinclair, . .	,,	...	II	...	...
,,	Evan Keri Evans, . . .	Wales,	...	I	...	...
,,	Robert Kennedy, B.Sc., . .	Scotland,	...	...	...	I
,,	John Liddle King, . . .	,,	...	II	...	...
,,	Malcolm Macnicol, . . .	,,	...	...	II	...
,,	Ernest Findlay Scott, . .	England,	I	I	...	...
,,	Robert Scrymgeour, . .	Scotland,	...	I	...	...
,,	Robert Reid Strachan, . .	,,	...	II	...	...
,,	John Cunningham Walker, .	,,	...	II	...	...
1889	Norman de Garis Davies, .	England,	...	II	...	...
,,	George Davidson Kempt, .	Scotland,	...	II	...	...
,,	Alfred Ernest Garvie, . .	Poland,	...	I	...	...
,,	John Hunter Harley, . .	Scotland,	...	I	...	...
,,	John Brownlee, . . .	,,	...	...	I	...
1890	James Fairlie Gemmill, . .	,,	I	...	...	...
,,	John Edgar M'Fadyen, . .	,,	I	...	...	...
,,	James Robertson Cameron, .	,,	...	I	...	...
,,	James Moffatt, . . .	,,	II	...	...	...
,,	James Peter Wilson, . .	,,	II	...	...	...
,,	John Easton Black, . .	,,	...	II	...	...
,,	George Douglas Brown, . .	,,	I	...	...	...
,,	Robert Bulloch Douglas, .	,,	...	I	...	...
,,	Peter Pinkerton, . . .	,,	...	...	I	...
,,	Douglas Blyth Binning, . .	,,	...	II	...	...
,,	Robert Baillie Douglas, . .	,,	...	II	...	...
,,	James Hair Maclean, . .	,,	...	II	...	...
,,	Gilbert Buchanan, . . .	,,	...	...	II	...
,,	Alexander Holm, . . .	,,	...	...	II	...
1891	John Hamilton Pagan . .	,,	I	...	...	...
,,	John Gillies, ...	,,	II	...	...	...

			Class of Honours and Department.			
			Classics.	Mental Philos.	Math. & Nat. Phil.	Natural Science
1891	John M'Gilchrist, . . .	Scotland,	II	...	...	...
,,	Horatio Scott Carslaw, . .	,,	...	...	I	...
,,	James Holm, ...	,,	...	...	I	...
,,	Nicol Macnicol, . . .	,,	II	II	...	...
,,	John White, ...	,,	...	II	...	...
1892	David Donaldson Robertson, .	,,	...	I	...	...
,,	Daniel Lamont, . . .	,,	...	II	I	...
,,	John Gillespie Spens, . .	,,	II	...	...	...
,,	Alexander Taylor, . . .	,,	II	...	...	...
,,	Walter Stewart, . . .	,,	...	...	I	...
1893	Donald Nicol Dow, . . .	,,	I	...		...
,,	Gilchrist Gibb Alexander, .	,,	...	I		...
,,	Robert Stevenson Horne, .	,,	...	I		...
,,	William Sandilands Templeton,	,,	...	...	I	...
,,	Wm. Carrick Anderson, . .	,,		...		I
,,	Edward H. Wallace, . .	,,	II	...	II	...
1894	Campbell M. Macleroy, . .	,,	I	...		...
,,	Robert George Nisbet, . .	,,	II	...		...
,,	Andrew Robertson, . . .	,,	II	...		...
,,	John Charles Scott, . .	Ireland,	I	...	—	...
,,	Charles William Thomson, .	Scotland,	I	—	—	...
,,	William Romaine Paterson, .	,,	...	I		...
,,	Charles Shirra Dougall, . .	,,	—	...	I	...
,,	William Craig Henderson, .	,,	...	...	I	...
,,	John Macfarlane Forsyth, .	,,	II	...		...
1895	William Gow, ...	,,	I	...		...
,,	Joseph Ferguson M'Fadyen, .	,,	I	...		...
,,	Gavin Laing Pagan, . . .	,,	...	I		...
,,	William Anderson Lindsay, .	,,	...	...	I	...
,,	Thomas Nisbet, . . .	,,	...	...	I	...
,,	John Alexander Duke, . .	,,	...	II	...	...
1896	David Hodge Crawford, . .	,,	I	...	...	...
,,	John Freeland Cunningham, .	,,	II	...	...	...
,,	John Girvan, ...	,,	II	...	...	...
,,	James M'Murtrie, . . .	,,	II	...	...	...
,,	James Slater Dunlop, . .	,,	...	...	II	...
,,	William Morrison, . . .	,,	...	II	...	...
,,	Samuel Harvey M'Ewing, .	,,	...	II	...	...
,,	Alexander Smith, . . .	,,	...	II	...	...
,,	John Miller, ...	,,	...	...	I	...
1898	William John Saull, . .	England,	...	II	...	...
1899	James Moffat, . . .	Scotland,	...	...	II	

MASTERS OF ARTS (M.A.).

Ordinances No. 11, Sections xi.–xv.; No. 44, Sections vi., viii.; No. 148, Sections ii., iii.; No. 160, Sections i.–iii.; No. 168, Section i. (1889).

			First Class.	Second Class.	Third Class.
1894	Henry Noel Brailsford,	England,	Mental Philosophy.	Classics.	
1895	William Gregory Bell,	do.,	Classics.		
,,	James Wallace Peck,	Scotland,	Math. & Nat. Phil.		
,,	William King Gillies,	do.,	Classics. Mental Philosophy.		
1896	James Paterson Brander,	do.,	Classics.		
,,	John Maclean Ramsay,	do.,	Classics.		
,,	Horace Fenton Wallace,	do.,	Classics.		
,,	James Gillespie,	do.,		Classics.	
,,	William Boyd,	do.,	Mental Philosophy.		
,,	James Wilson Copeland,	do.,	Math. & Nat. Phil.		
,,	Adam Bell Stewart,	do.,	Math. & Nat. Phil.		
,,	George Donald Valentine,	do.,	Math. & Nat. Phil.		
,,	Arthur West Wilkie,	England,		Math. & N.P.	
,,	John Young,	Scotland,		Math. & N.P.	
1897	George Stewart Adams,	do.,	Classics.		
,,	Robert Daniels Bell,	England,	Classics.		
,,	John W. Henderson,	Scotland,	Classics.		
,,	Peter William Monie,	do.,	Classics.		
,,	Marion M. Crichton,	China,		Classics.	
,,	Alex. James Martin,	Scotland,		Classics.	
,,	Thomas Neilson,	do.,		Classics.	
,,	Allan Gibson,	do.,			Classics.
,,	Thomas Ellis Jones,	Wales,	Mental Philosophy.		
,,	David Stevenson,	Scotland,			English.
,,	William M. R. Pringle,	,,	History.	Classics.	
,,	Gavin Scott,	,,	History.	Classics.	
,,	Adam Hamilton,	,,	Classics.		
,,	James William Baird,	,,		Classics.	
,,	Grace Foulis Hay,	,,		Classics.	
,,	William N. Raeburn,	,,		Classics.	
,,	Andrew Boyd Scott,	,,	Mental Philosophy.		
,,	John Scoular Thomson,	,,	Mental Philosophy.		
,,	Alex. M'Callum Scott,	,,			Ment. Phil.
,,	James Campbell Ker,	,,	Math. & Nat. Phil.		
,,	William Wylie Fulton,	,,		English.	
,,	Richard R. Williams,	Wales,			English.
1898	John Lyle Morison,	Scotland,	History. English.		
,,	William H. Begg,	,,	Classics.		
,,	David L. Blair,	,,	Classics.		
,,	John Harvey,	,,	Classics.		
,,	Dorothy N. T. Murray,	,,		Classics.	
,,	Constance Tannahill,	England,			Classics
,,	Alexander A. Gardner,	Scotland,	Math. & Nat. Phil.		
,,	James E. Henderson,	,,		Math. & N.P.	
,,	Wm. Fulton (Uddingston),	,,	Classics.	Math. & N.P.	

			First Class.	Second Class.	Third Class.
1898	Eliz. Pettigrew Taylor,	Scotland,	Math. & Nat. Phil.	English.	
,,	William Longmore Parkin,	,,			Classics, M. Phil
,,	Robert M'Ewan,	,,	Classics.		
,,	Helen Rutherfurd,	,,	Classics.		
,,	William Fulton (Glasgow),	,,		Classics.	
,,	William Henderson Love,	,,		Classics.	
,,	Alexander Auchinachie,	,,			Classics
,,	And. James Campbell Kerr,	,,			Classics.
,,	Hugh Reid Buchanan,	,,	Mental Philosophy.		
,,	David H. Tweeddale,	,,	Mental Philosophy		
,,	Robert Candlish,	,,		Ment. Phil	
,,	Robert John Tainsh Bell,	,,	Math. & Nat. Phil.		
,,	Thomas Pullar,	,,	Math. & Nat. Phil		
,,	Joseph White,	,,	Math. & Nat. Phil.		
,,	Hugh Brown,	,,		Math & N P	
,,	Peter Lowson,	,,		Math & N P	
,,	John Jeffrey,	,,			M.&N.P.
,,	Helen Margaret Rule,	,,	English.		
,,	Henry Murphy,	,,		English	
,,	Henry Givan Webber,	,,			English.
1899	Samuel F. H. Mackay	,,	Classics.		
,,	Archibald Main,	,,	Mental Philosophy.		
,,	John Edgar,	,,	English		
,,	Maude Gertrude May,	England,	English.		
,,	Alexander D. Lindsay,	Scotland,		Classics	
,,	Charles G. M'Ilravey,	Ireland,		Classics.	
,,	Gordon B. Nielson,	Scotland,		English	
,,	Jessie Lyon Gilchrist,	,,		Mod. Lang	
,,	Minnie Louise Arthur,				M. Lang
,,	David M. Stewart,		Math. & Nat. Phil		
,,	John Lochhead,	,,	English.	History.	
,,	Ritchie Girvan,	,,	English		Classics
,,	John Anderson,	,,		Classics, Math & N.P	
,,	William A. Edward,	England,	Classics.		
,,	James Sheridan,	Scotland,	Classics.		
,,	James M'Clelland,	,,		Classics.	
,,	James Faulds,	,,			Classics
,,	Arch. M. Macmillan, B.Sc.,	,,	Math. & Nat. Phil.		
,,	David K. Picken,	,,	Math. & Nat. Phil		
,,	Robert W. Stewart,	,,		Math & N P	
,,	Katharine T. M'Millan,	,,	English.		
,,	George Ogilvie,	,,	English.		
,,	Janet Spens,	,,	English.		
1900	Mabel Atkinson,	England,	Mental Philosophy.	Classics	
,,	George H. Stevenson,	Scotland,	Classics.		
,,	Robert B. Carslaw,	,,	Math. & Nat. Phil.		
,,	Peter Ramsay,	,,	Math. & Nat. Phil		
,,	James Jack,	,,		Classics.	
,,	Norman R. Mitchell,	,,		Classics.	
,,	Matthew Babington,	,,		Ment. Phil.	
,,	Peter Lowe, B.Sc.,	,,		Math. & N P.	

			First Class.	Second Class.	Third Class.
1900	Winifred Boyd, .	India,		English.	
,,	Margaret G. Fulton, .	Scotland,		Mod. Lang.	
,,	James Johnston, .	do.,	Mental Philosophy.		
,,	Alex. B. Mackay, .	do.,	Mental Philosophy.		
,,	Alexander Montgomerie,	do.,	Mental Philosophy.	[1] History.	
,,	David G. Taylor, .	do.,	Math. and Nat. Phil. [2]Classics.		
,,	Margaret L. Anderson,	do.,	English.		
,,	Peter George Smith, .	do.,		Ment. Phil.	
,,	John Charles Mann, .	England,		Math.&N. P.	
,,	Roderick M. Nicol, .	Scotland,		Math.&N.P.	
,,	James Miller Clark, .	do.,			M.&N.P
1901	James F. Dyer, . .	Japan,	Classics. [1] Economic Science.		
,,	Peter Hately Waddell,	Singapore,	Classics.		
,,	Francis P. H. Stirling,	Scotland,	Math. and Nat. Phil.		
,,	Hugh Watt, . .	do.,	English.		
,,	Marion K. Binnie, .	do.,	Modern Languages.		
,,	William H. Buchan, .	do.,		Classics.	
,,	Owen L. Jones, . .	Wales,		Classics.	
,,	Thomas R. M'Murtrie,	Scotland,		Classics.	
,,	Alexander Russell, .	do.,		Classics.	
,,	Andrew M'Kerral, .	do.,		Math.&N.P.	
,,	Arthur S. Hutchison,	do.,			Classics.
,,	[3]Thomas Jones, . .	do.,	Economic Science.		
,,	Dougald B. M'Quistan,	do.,	Math. and Nat. Phil.	Classics.	
,,	Steuart N. Miller, .	do.,	Classics.		
,,	Charles A. Young, .	do.,	English.		
,,	Stanley H. Turner, .	England,	Economic Science.		
,,	John J. Gemmell, .	Scotland,		Classics.	
,,	Thomas Graham, .	do.,		Classics.	
,,	Jas. G. MacDonald,	Br. Cen. Africa,		Classics.	
,,	James Moyes, . .	Scotland,		Classics.	
,,	William R. Wiseman,	do.,		Ment. Phil.	
,,	James N. Stirling, .	do.,		Math.&N.P.	
,,	Catherine Bennie, .	do.,		Mod. Lang.	
,,	James H. Steel, . .	do.,		Econ. Sc.	
1902	Margaret A. Scott, .	do.,	Modern Languages.		
,,	James M'Nabb, . .	do.,		Math.&N.P.	
,,	Helen M. Armour, .	do.,		English.	
,,	Alexander Mackinnon,	do.,		English.	
,,	Edith M. Lindsay, .	do.,		History.	
,,	[4]Frederick Mort, .	do.,			M.&N.P.
,,	[4]John Patterson, .	do.,	English.		
,,	[5]Christian Pettigrew Home Morton, . . .	do.,		Mod. Lang.	
,,	[5]Malcolm MacAlister, . .	do.,		English.	
,,	[5]John Macdonald Richardson,	do.,			Ec. Sc.

[1] Postgraduate Honours in Oct., 1901.

[2] Postgraduate Honours in April, 1901.

[3] Took the Ordinary Degree in Nov., 1900.

[4] Took the Ordinary Degree in April, 1900.

[5] Took the Ordinary Degree in April, 1901.

		First Class.	Second Class.	Third Class.
1902	Wm. Lindsay Thompson, Scotland,	Math. and Nat. Phil.	Classics.	
,,	William Holms Coats, . do.,	Classics.		
,,	Robert Kerr Goodfellow, . do.,	Classics.		
,,	John MacInnes, . . . do.,	Classics.		
,,	Eric James Roberts, . England,	Mental Philosophy.		
,,	Robert Alex. Houstoun, Scotland,	Math. and Nat. Phil.		
,,	Mary Clow Cameron, do.,	Modern Languages.		
,,	George Stewart, . do.,	History.		
,,	George Douglas Reith, do.,		Classics. Mental Phil.	
,,	Archie Duncan Thomson, do.,		Mental Phil.	Classics.
,,	Oliver Dyer, . . do.,		Classics.	
,,	John Gordon, . . do.,		Classics.	
,,	John Orr, . . . do.,		Classics.	
,,	Frank William Saunders, do.,		Classics.	
,,	Margaret Hay Livingston, do.,		Math. & N. P.	
,,	John Henderson Stewart, do.,		Math. & N. P.	
,,	Maggie Chalmers, . do.,		Mod. Lang.	
,,	Robert Millar, . . do.,			M. & N. P.
,,	Peter MacMillan, . do.,			History
1903	George Stuart Gordon, do.,	Classics.		
,,	Archibald Lang, . do.,	Math. and Nat. Phil.		
,,	James Hamilton Lindsay, do.,	Math. and Nat. Phil.		
,,	John Reid Cameron, . do.,	English.		
,,	Mary Emilie Thomson, do.,	Modern Languages.		
,,	George Beaumont, . England,		Classics.	
,,	Jas. Aitchison Milligan, Scotland,		Classics.	
,,	Matthew Stewart, . do.,		Classics.	
,,	Harold Wilson, . . do.,		Classics.	
,,	[1]Alexander Borland, . do.,		Mental Phil.	
,,	Muriel Giffen Lindsay, do.,		Math. & N. P.	
,,	William M'Naught, . do.,		Math. & N. P.	
,,	[1]John Laing Kinloch, do.,		English.	
,,	Charles Mgkee Wright, Ireland,			Classics.
,,	James Campbell Moir, Scotland,			M. & N. P.
,,	Wm. Scott Branks Wilson, do.,			M. & N. P.
,,	William Sutherland, . do.,	Math. and Nat. Phil.	History.	
,,	Robert R. Rusk, . . do.,	Mental Philosophy.		
,,	John W. Scott, . . . do.,	Mental Philosophy.		
,,	[2]William A. Campsie, . do.,	Math. and Nat. Phil.		
,,	Samuel N. Forrest, . . do.,	Math. and Nat. Phil.		
,,	Robert Hamilton, . . do.,	Math. and Nat. Phil.		
,,	Robert Jack, . . . do.,	Math. and Nat. Phil.		
,,	William Miller, . . do.,	Math. and Nat. Phil.		
,,	Mary C. Biggar, . . do.,	Modern Languages.		
,,	Janet Green, . South Africa,	Modern Languages.		
,,	Alice M. B. Guthrie, Scotland,	Modern Languages.		
,,	Robert W. Barr, . . do.,		Classics.	
,,	Peter Marshall, . . do.,		Classics.	
,,	Alexander Moffat, . . do.,		Classics.	
,,	James H. Stevenson, Canada,		Classics.	
,,	Robert M. Morison, . Scotland,		Math. & N. P.	

[1] Took the Ordinary Degree in April, 1901.

[2] Took the Ordinary Degree in April, 1902.

			First Class.	Second Class.	Third Class.
1903	[1]Daniel Gillies,	Scotland,		English.	
,,	Mary Barrowman,	do.,		Mod. Lang	
,,	Robert Cunningham,	do.,			Classics
,,	Harry J. Phillips,	do.,			Classics.
,,	[2]James Hunter,	do.,			M.&N.P
,,	[3]Peter M'Dougall,	do.,			English.
1904	James M. Devine,	do.,	Classics.		
,,	William Manson,	do.,	Classics.		
,,	Charles G. Nelson,	do.,	Classics.		
,,	Annie Jane Arnott,	do ,	Modern Languages.		
,,	Elizabeth W. Scott,	do.,	Modern Languages.		
,,	William J. Auld,	do.,		Classics.	
,,	Adam Patrick,	do.,		Classics.	
,,	Arthur Shepherd,	do.,		Classics.	
,,	[2]John Hutcheson,	do.,		English.	
,,	Arthur Craig,	England,		Mod. Lang.	
,,	James P. Mackay,	Scotland,			M.&N.P.
,,	Robert Burns (Larkhall),	do.,	History.		M.&N.P.
,,	Alexander Pender Crichton,	do.,	Mental Philosophy.		
,,	Robert Nicol Cross,	do.,	Mental Philosophy.		
,,	Robert Alex. Cameron Macmillan,	do.,	Mental Philosophy.		
,,	Harold Charles Rowse,	England,	Mental Philosophy.		
,,	George Green,	Scotland,	Math. and Nat. Phil.		
,,	John Miller (Beith),	do.,	Math. and Nat. Phil.		
,,	John Ferguson Tinto,	do.,	Math. and Nat. Phil.		
,,	James Robertson Buchanan,	do.,	Semitic Languages		
,,	Robert Dewar,	England,	English.		
,,	Theodore Douglas Dunn,	Scotland,	English.		
,,	Ida Macgregor Gordon,	do.,	Modern Languages.		
,,	Annie Glenday Philip,	do.,	Modern Languages.		
,,	[4]Margaret T. Robertson,	do.,	History.		
,,	[1]George Shann,	do.,	Economic Science.		
,,	Donald Carswell,	do.,		Classics.	English.
,,	William Tod Ritchie,	do.,		History.	Classics.
,,	John M'Bryde,	do.,		Classics.	
,,	John MacLean (Wishaw),	do.,		Classics.	
,,	William Paterson,	do.,		Ment. Phil.	
,,	Robert Browning,	do.,		Math.& N.P.	
,,	David Auchinvole Dick,	do.,		Math.& N.P.	
,,	Robert Harvie,	do.,		Math.& N.P.	
,,	Thomas David King Murray,	do.,		Math & N.P.	
,,	David Bryan,	do.,		English.	
,,	James Hutchison Cockburn,	do.,		English.	
,,	William MacDougall,	do.,		English.	
,,	Alice Annie Lumsden Malcolm,	do.,		English.	
,,	Isabella Wilson,	do.,		Mod. Lang.	
,,	[1]Andrew Henderson,	do.,		Math.& N.P.	
,,	Jane Helen Ross,	do.,			M.&N.P.
,,	Margarette C. Paterson,	do.,			English.

[1] Took the Ordinary Degree in April, 1901.

[2] Took the Ordinary Degree in April, 1903.

[3] Took the Ordinary Degree in April, 1900.

[4] Took the Ordinary Degree in April, 1902.

			First Class.	Second Class.	Third Class.
1904	Douglas H. Wilson,	Scotland.	. . . . .	. .	History.
1905	John Rankine Brown,	. do.,	Classics.		
,,	Charles Geo. G. Helme,	. do.,	Classics.		
,,	Walter M. MacCulloch,	. do.,	Classics.		
,,	William Salmond Stewart,	do.,	Classics.		
,,	Janet Isabel Macphail,	. do.	Modern Languages.		
,,	Flora Ritchie, . .	. do.,	Modern Languages.		
,,	James Edward Scott,	. do.,	. . . . .	Classics. History.	
,,	James Mathie Barclay,	. do.,		Classics.	
,,	John Jarvie Dempster,	. do.,		Classics.	
,,	Robert Hellier Napier,	. do.,		Classics.	
,,	Charles Eadie Park White,	do.,		Classics.	
,,	James Mair Frew, .	. do.,		Math.&N.P.	
,,	Andrew Hutchison, .	. do.,	. .	Math.&N.P.	
,,	James Adam M'Harg,	. do.,		Math.&N.P.	
,,	Christian Ewen .	. do.,	.	English.	
,,	[1] William Ferguson, .	. do.,	.	English.	
,,	Clarence James Vincent,	. do.,	.	. .	Classics. History.
,,	Wm. Isaac Hutcheon Marr,	do.,	. . .	.	M.&N.P.
,,	[2] Andrew C. Baird, .	. do.,	. . .	. . .	M.&N.P.
,,	Kenneth Stewart, .	. do.,	. . .	Classics.	
,,	James Carrick Miller Fairlie,	do.,	Classics. Semitic Languages.		
,,	Constance Helen Margaret Archibald,	India,	Modern Languages. Economic Science.		
,,	[1] Albert Frederick Lucas Brayne, .	England.	Classics.		
,,	Archibald A. Bowman,	Scotland.	Mental Philosophy	Classics.	
,,	Neil M'Arthur, . .	. do.,	Math. and Nat. Phil.		
,,	Thomas Murray MacRobert,	do.,	Math. and Nat. Phil.		
,,	Leonard James Russell,	England,	Math. and Nat. Phil. Mental Philosophy		
,,	George Duncan Campbell Stokes,	British Guiana.	Math. and Nat. Phil.		
,,	Isabel Margaret Milligan,	Scotland,	English.		
,,	Annie Murray Macgregor,	do.,	Modern Languages.		
,,	William Buchan Donald,	. do.,	. . . . .	Classics. Math.&N.P.	
,,	Mary Scott Mackenzie,	. do.,	. . . .	Classics.	
,,	Tennant Sloan, . .	. do.,	. .	Classics. History.[5]	
,,	Henry Martyn Trafford,	England,	. .	Ment. Phil.	
,,	Donald Macphie, .	. do.,	. . . .	Math.&N.P.	
,,	John Purdie, . .	. do.,	. . .	Math.&N.P.	
,,	Richard Murray, .	. do.,	. .	English.	
,,	Dugald Ferguson Percy,	. do.,	. . . . .	English.	
,,	[1] David Brown Mungo,	. do.,	. . . . .	History.	
,,	[3] George Frank Clark, .	. do.,	. . . .	. .	English.

Took the Ordinary Degree in April, 1902.

[2] Took the Ordinary Degree in April, 1903.

Took the Ordinary Degree in April, 1904.

[4] Took the Ordinary Degree in April, 1905.

[5] Postgraduate Honours in October, 1907.

		First Class.	Second Class.	Third Class.
1906	Gilbert Pitcairn Hogg, England,	Economic Science.	Math.&N.P.	
,,	Janey Aitken Keddie, . do.,	Modern Languages.		
,,	Mary M. Waddington, . do.,	Modern Languages.		
,,	Thomas Logan Douglas, . do.,	. . . . .	Classics.	English.
,,	Oswald James Gardner, . do.,	. . . . .	Classics.	
,,	Alexander Colquhoun Grant, do.,	. . . . .	Classics.	
,,	Elton Lawrence Gueritz, . do.,	Economic Science.[5]	Classics.	
,,	Elias Henry Jones, . Wales.	. . . . .	Classics.	
,,	[1] John M'Phee, . . Scotland.	. . . . .	Classics.	
,,	Euphemia W. Sutherland, do.,	. . . . .	Classics.	
,,	James M'Arthur, . . do.,	. . . . .	English.	
,,	Elizabeth Alexander Forrest, do..	. . . . .	Mod. Lang.	
,,	William Angus Munro, . do.,	. . . . .	Mod. Lang.	
,,	Annie Stewart Robertson, do.,	. . . . .	Mod. Lang.	
,,	Joan Dorothea Hughes, England,	. . . . .	. . .	English.
,,	Thomas Beaumont, . . do.,	Modern Languages.	Classics.	
,,	Eliz. Gillies Morison, Scotland,	Math. & Nat. Phil.		
,,	David Norman Strathie, . do.,	Math. & Nat. Phil. History.[6]		
,,	James Keith, . . . do.,	History.		
,,	[2] Henry Glassford Bell Spens, do.,	History.		
,,	Adam Wilson Burnet, . do.,	. . . . .	Classics.	
,,	James Carmichael, . . do.,	. . . . .	Classics.	
,,	James Dunlop Paterson, . Straits Settlements.	. . . . .	Classics.	
,,	Wm. Gillan Waddell, Scotland,	. . . . .	Classics.	
,,	Joseph Cupples, . . do.,	. . . . .	Ment. Phil.	
,,	George Robert Robertson, do.,	. . . . .	Ment. Phil.	
,,	Alfred Ingram Steven, . do.,	. . . . .	Math.&N.P.	
,,	Octavia Jane Ronald Bennett, . . do.,	. . . . .	English.	
,,	[3] Charles Cullen, . . do.,	. . . . .	English.	
,,	[3] Wm. Scott (Stonehouse), . do.,	. . . . .	English.	
,,	[3] Arthur Esdaile Macgregor, . . America,	. . . . .	EconomicSc.	
,,	Wilfred Gerald Maclean, England,	. . . . .	. . .	Classics.
,,	[4] Ian Darroch Neilson, Scotland,	. . . . .	. . .	M. Phil.
,,	Hugh Smith, . . . do.,	. . . . .	. . .	M.&N.P.
,,	James Williamson, . . do.,	. . . . .	. . .	M.&N.P.
,,	[3] John Lambie, . . . do.,	. . . . .	. . .	M.&N.P.
1907	John Hamilton Maxwell, . do.,	Classics.		
,,	William Morton Ogilvy, . do.,	Classics.		
,,	John Carter Rollo, . . do.,	Classics.		
,,	Francis Mackenzie Smith, . . England,	Classics.		
,,	William M'Kelvie, . Scotland,	Mental Philosophy		
,,	[4] John Bennett Black, . do.,	English.		
,,	[4] Elsie Frame Macdonald, . do.,	English.		
,,	Mary Fullarton Armour, . do.,	Modern Languages.		
,,	Mungo Tennent Archibald, do.,	. . . . .	Classics.	

[1] Took the Ordinary Degree in April, 1903.
[2] Took the Ordinary Degree in November, 1905.
[3] Took the Ordinary Degree in April, 1904.
[4] Took the Ordinary Degree in April, 1905.
[5] Postgraduate Honours in April, 1908.
[6] Postgraduate Honours in November, 1908

			First Class	Second Class	Third Class.
1907	James Ballantyne,	Scotland.		Classics	
,,	John Charles Watson,	do.,		Classics.	
,,	James Robert Brown,	do.,		Math & N.P.	
,,	Finlay M'Culloch,	do.,		Math & N P	
,,	Alex. Tulloch Robertson Yuille,	do.,	Mental Philosophy		
,,	George Anderson,	do.,	Math. & Nat. Phil		
,,	John Jackson,	do.,	Math. & Nat Phil		
,,	John M'Whan,	do.,	Math. & Nat. Phil		
,,	David Burnett Meek,	do.,	Math. & Nat Phil.		
,,	Margaret Barr Moir,	do.,	Math. & Nat Phil		
,,	[1]James Paul,	do.,	Math. & Nat. Phil		
,,	John Alexander Falconer	do.,	English.		
,,	Margaret Muriel Gray,	do.,	English.		
,,	[2]Ruby Fergus Henderson,	do.,	English.		
,,	Helen Armour Mitchell,	do.,	Modern Languages.		
,,	John Talman,	do.,	History		
,,	Neil Conley,	do.,		Classics.	
,,	William M'Ewan,	do.,		Classics.	
,,	Thomas Niven MacIlravey,	do.,		Classics	
,,	James M'Kelvie,	do.,		Classics.	
,,	Walter Brown,	do.,		Math.& N P	
,,	Robert Ferguson,	do.,		Math.& N P.	
,,	Robert Gibson (Hamilton),	do.,		Math & N P	
,,	William Oswald,	do.,		Math.& N P	
,,	Samuel Fowler Hunter,	do.,		Semitic Lang	
,,	Margaret Blair,	do.,		English.	
,,	[1]Henry Arthur Kellow,	do.,		English	
,,	William Miller Kerr,	do.,		English	
,,	Douglas Dickson Robertson,	do.,		English.	
,,	Marie Friedrike Krasser,	England		Mod. Lang	
,,	Daisy Macdonald,	Scotland.		Mod Lang	
,,	[1]Grace Oliphant,	England,		Mod. Lang	
,,	Andrew Drummond Harcus,	do.,		History.	
,,	[1]Archibald Angus Campbell,	Scotland,		Economic Sc	
,,	[4]Percy Douglas Hamilton,	England,		Economic Sc.	
,,	[2]Andrew Templeton,	Scotland,		Economic Sc.	
,,	George Blair,	do.,			Classics
,,	[3]Jessie Marjorie M'Leish,	do.,			M.& N P.
,,	Dorothy Grainger Reid,	do.,			M.& N.P.
,,	Elizabeth Findlay Stevenson,	do.,			M.& N P.
,,	[1]Ralph Somerville Weir,	do.,			M.& N P.
,,	[3]John Martin Munro,	do.,			English.
,,	Duncan Hamilton Neilson,	do.,			English.
,,	Robert Whyte Roxburgh,	do.,			English.
,,	Margaret Roughead,	do.,			M. Lang.
1908	Henry Illingworth Cunningham,	do.,	Classics.		
,,	Robert Gibson (Glasgow),	do.,	Classics.		

---

[1] Took the Ordinary Degree in April, 1905.
[2] Took the Ordinary Degree in November, 1905.
[3] Took the Ordinary Degree in April, 1906.
[4] Took the Ordinary Degree in April, 1907.

			First Class.	Second Class.	Third Class.
1908	Herbert James Paton,	Scotland,	Classics.		
,,	Andrew Clark, . . .	do.,	Modern Languages.		
,,	Mary Hunter, . . .	do.,	Modern Languages.		
,,	Jean Graham Stephen, .	do.,	Modern Languages.		
,,	Andrew Currie, . . .	do.,		Classics.	
,,	Joseph John Graham, .	do.,		Classics.	
,,	Margaret Stirling M'Leod,	do.,		Classics.	
,,	William Miller Mathieson,	do.,		Classics.	
,,	David Frame Steele, . .	do.,		Classics.	
,,	John Watt Tait, . .	do.,		Classics.	
,,	Alexander Smith Russell, .	do.,		Math.&N.P.	
,,	[1]George Stewart, . .	do.,		English.	
,,	Wallace MacCallum Conley,	do.,	Classics.		
,,	David Millar, . . .	do.,	Classics.		
,,	John Robb, . . .	do.,	Classics.		
,,	Bryce Kerr Nairn Wyllie, .	do.,	Classics.		
,,	[2]Robert Chapman Davie,	Portugal,	English.		
,,	Euphemia D. Gordon,	Scotland,	English.		
,,	William Johnston Merry, .	do.;	English.		
,,	Mary Campbell Waddell, .	Straits Settlements,	English.		
,,	Marion Gilmour Arthur,	Scotland,	Modern Languages.		
,,	Mary Ethel Alison Reid, .	do.,	Modern Languages.		
,,	Isabella Mackintosh Ross, .	do.,	Modern Languages.		
,,	Herbert W. Saunders,	England.	History.		
,,	John Orr Taylor, .	Scotland.	History.		
,,	[2]William Kennedy. . .	do.,	Economic Science.		
,,	James Cunnison, . .	do.,		Ment. Phil Economic Sc.	
,,	Thomas Campbell Gibson,	China		Classics.	
,,	George Murray, . .	Scotland.		Classics.	
,,	James Porter, . . .	do.,		Classics.	
,,	Fred. Alexander Steuart, .	do.,		Classics.	
,,	Jane Anderson Clanachan,	do.,		Math.&N.P.	
,,	Elizabeth Pitcairn Hogg, .	do.,		Math.&N.P.	
,,	Janet Gilmour M'Gown, .	do.,		Math.&N.P.	
,,	Alexander Sym Small, .	do.,		Math.&N.P.	
,,	Janetta Inglis Wyllie Mackie,	do.,		English.	
,,	[1]Charles Maclean, . .	do.,		English.	
,,	Margaret Ethel Watson, .	do.,		English.	
,,	John Young (Glasgow), .	do.,		English.	
,,	Mabel Edith Alexander, .	do.,		Mod. Lang.	
,,	Alice Green, .	South Africa.		Mod. Lang.	
,,	Janet Frew Kellie, .	Scotland.		Mod. Lang.	
,,	Elizabeth C. Reid, . .	do.,		Mod. Lang.	
,,	Justina Thomson Weir, .	do.,		Mod. Lang.	
,,	James Young Reid, . .	do.,		History.	
,,	[2]Louis Carrick Phillips, .	do.,			Classics.
,,	Hugh Higgins, . . .	do.,			M.&N.P.
,,	[3]Chas. Hamilton Weaver,	England,			Ec. Sc.

[1] Took the Ordinary Degree in April, 1905. [2] Took the Ordinary Degree in April, 1907.
[3] Took the Ordinary Degree in April, 1908.

			First Class.	Second Class.	Third Class.
909	Eric Dickson Macgregor,	Scotland	Classics.		
,,	Robert Fleming Rattray, .	do.,	English		
,,	George Taylor, . . .	do.,	. . . . .	Classics	
,,	Helen Brown Scott Lennox,	do.,	Classics.		
,,	Hugh Forgan Martin, .	do.,	Classics		
,,	Hugh Adam Reyburn, .	do ,	Mental Philosophy		
,,	John Ronald Peddie,	do.,	English		
,,	William Duncan Taylor,	do ,	English		
,,	Margaret E. Martin, .	Ireland,	Modern Languages.		
,,	Agnes Morton, . .	Scotland,	Modern Languages		
,,	Alice Marion Nelson,	England,	Modern Languages		
,,	Nettie Hunter Stein, .	Scotland,	Modern Languages.		
,,	Bernard I. Macalpine,	England,	.	Classics.	
,,	James Stothers, .	Scotland,	.	Classics	
,,	William Boyd Henderson,	Turkey,		Ment. Phil.	
,,	Muriel Nelson, .	England,	. .	English	
,,	Ada M. W. Renwick,	Scotland,	.	English.	
,,	[1] William M'Munn, .	. do ,	. . . .	Mod. Lang.	

---

[1] Took the Ordinary Degree in April, [illegible]

BACHELORS OF SCIENCE (B.Sc.).

(O.R.)

			Honours.	
			Natural Science.	Engineering Science
19	Robert F. Muirhead, C.E.,	Scotland,	. . . .	Math. & Nat. Phil. II
12	John Cleland, C.E., .	do.,	. . .	Math. & Nat. Phil. II
13	John M'Cowan, C.E., .	do.,	. . . .	Math. & Nat. Phil. II
14	William Weir, . .	do.,	. . . . .	Math. & Nat. Phil. II
	James C. Todd, . .	India,	Math. & Nat. Phil. II	
15	Lawrence Crawford, .	Scotland,	. . . .	Math. & Nat. Phil. I
17	Angus M'Lean, . .	do.,	. . . .	Math. & Nat. Phil. II
10	James Stanley Muir, .	do.,	Chemistry.	
	Robert Watson Smith, .	do.,	Chemistry.	
1	James Fenwick, . .	Australia,	. . . .	Civil Engineering.
	Robert Main, . . .	Scotland,	Chemistry.	
	Robert Muir Ferrier, .	do.,	. . . .	Civil Engineering.
18	John Dewar Cormack, .	do.,	. . . .	Math. & Nat. Phil. I Civil Engineering.
	Jas. Blacklock Henderson,	do.,	. . . .	Math. & Nat. Phil. I Civil Engineering.
	James Rankin, . . .	do.,	Zoology and Botany.	
,	William S. Cook, . .	do.,	Physiology.	
.	David R. Boyd, . .	do.,	Chemistry.	
18	James C. Robertson, M.A.,	do.,	Anat. and Physiol.	

			Honours.	
			Natural Science.	Engineering Scienc
1894	Charles Forbes,	. Scotland,	. . . . .	Civil Engineering.
,,	Wm. Henry Lang, .	. England,	Botany and Zoology.	
,,	George Wm. Shearer,	. Ireland,	. . . . .	Civil Engineering.
1895	Wm. Craig Henderson,	. Scotland,	. . . . .	Math. & Nat. Phil.
,,	Hugh Calderwood,	do.,	Anat. and Physiol.	
,,	John Allan Craigie Macewen,	do.,	Anat. and Physiol.	
,,	William Hamilton,	. do.,	. . . . .	Civil Engineering.
,,	Campbell Macmillan,	. do.,	. . . . .	Civil Engineering.
,,	Thomas Hunter, M.A.,	. do.,	Anat. and Physiol.	
,,	William Martin, M.A.,	. do.,	Anat. and Physiol.	
1896	William S. Templeton, M.A.,	do.,	. . . . .	Math. & Nat. Phil.
,,	Peter L. L. Craig, M.A.,	do.,	Anat. and Physiol.	

BACHELORS OF SCIENCE (PURE SCIENCE).

Ordinance No. 12, Section ix. (1889).

		Subjects of Final Examination.			
1898	John Pinkerton Duncan, - -	Anat.	Physiol.	Zoology.	
,,	Ruth Pirret, - - - - -	Math.	Chemist.	Physiol.	
,,	Daisy Annabella Murdoch Clark,	Physiol.	Zoology.	Botany.	
,,	William Anderson Lindsay, M.A.,	Math.	Nat. Phil.	*Astron.	
,,	Allan Martin, M.A., - - - -	Anat.	Physiol.	Zoology.	
1899	Robert John Tainsh Bell, M.A.,	*Math.	*Nat. Phil.	*Astron.	
,,	Robert Macfarlane Clark, - -	*Math.	*Nat. Phil.	Chemist.	
,,	William Anderson, - - - -	*Math.	*Nat. Phil.	*Astron.	
,,	James Slater Dunlop, M.A., -	Math.	Nat. Phil.	Astron.	
,,	Robert William Stewart, - -	*Math.	*Nat. Phil.	Chemist.	
,,	Robert George White, M.A., -	Anat.	Physiol.	Zoology.	
1900	Gertrude Dorman Bostock, -	Anat.	Physiol.	Zoology.	
,,	Kate Fraser, - - - - -	Anat.	*Physiol.	Zoology.	
,,	William Fulton, M.A., - -	*Math.	Nat. Phil.	*Astron.	
,,	William Boyd, M.A., - - -	Chemist.	Geology.	Zoology.	
,,	Joseph White, M.A., - - -	*Math.	*Nat. Phil.	Anat.	Physiol.
1901	James Miller Clark, M.A., - -	Math.	Nat. Phil.	*Astron.	
,,	James Alex. Russell Henderson,	Math.	Chemist.	Geology.	
,,	Ivy M'Kenzie, M.A., - - -	Anat.	Physiol.	Zoology.	
,,	Alexander Matheson, M.A., -	Anat.	Physiol.	Zoology.	
,,	Alexander Wood, - - - -	Math.	Nat. Phil.	*Astron.	
,,	Robert Donald, - - - - -	Chemist.	Geology.	Zoology.	
,,	Malcolm Hutton, M.A., - -	Anat.	Physiol.	Zoology.	
,,	William Hyslop, M.A., - -	*Math.	*Nat. Phil.	Geology.	
,,	Jane Hamilton M'Ilroy, M.A., -	Physiol.	Zoology.	Botany.	
,,	John Muir, - - - - - -	Anat.	Physiol.	Geology.	
1902	Frederick Mort, M.A., - -	Math.	Nat. Phil.	Geology.	
,,	George Goldie Smith, - -	Anat.	Physiol.	Zoology.	
,,	Alfred Walter Stewart, - -	Math.	Chemist.	Geology.	

* The asterisks indicate Special Distinction in the subjects to which they are prefixed.

		Subjects of Final Examination		
1902	David James M'Leish, M.A., -	Anat.	Physiol.	Zoology.
,,	Berkeley Hope Robertson, M.A.,	Physiol.	Geology.	Zoology.
1903	John Graham, - - -	Chemist.	Anat.	Physiol.
,,	Robert Irvine, M.A., -	Math.	Astron.	Geology.
,,	Jessie Deans Rankin, M.A., -	Anat.	Physiol.	Zoology.
,,	Wm. Lindsay Thompson, M.A.,	*Math.	*Nat. Phil.	Geology.
,,	Thomas Barbour, - - -	Math.	Nat. Phil.	Physiol.
,,	Robert A. Houston, M.A., -	Math.	Nat. Phil.	*Astron.
,,	Thomas M'Cririck, M.A.,	Geology.	Zoology.	Botany.
,,	Dougald B. M'Quistan, M.A.,	*Math.	Nat. Phil.	*Astron.
,,	John H. Stewart, M.A.,	Math.	Nat. Phil.	*Astron.
1904	John Anderson, M.A., -	Physiol.	Geology.	Zoology.
,,	John Campbell, - -	Math.	Nat. Phil.	Chemist.
,,	Samuel N. Forrest, M.A., -	*Math.	*Nat. Phil.	Chemist.
,,	Sampachi Fukuzawa,	Math.	Nat. Phil.	Chemist.
,,	Louis Niel Gow, M.A., -	Math.	Nat. Phil.	Chemist.
,,	John Isdale Greig, M.A.,	Anat.	Physiol.	Botany.
,,	James Hunter, M.A.,	Math.	Nat. Phil.	Astron.
,,	Harry S. Hutchison, - - -	Chemist.	Anat.	Physiol.
,,	Margaret Barbour, M.A., -	*Physiol.	Geology.	Botany.
,,	David Stewart Brunton, M.A.,	Math.	Chemist.	Geology.
,,	Archibald Lang, M.A., -	*Math.	Nat. Phil.	Astron.
,,	William Miller, M.A., -	*Math.	*Nat. Phil.	Astron.
,,	Peter Ramsay, M.A., -	*Math.	*Nat. Phil.	Geology.
1905	David Arthur, - -	Anat.	*Physiol.	Zoology.
,,	Andrew Cumming Baird, M.A.,	Math.	Nat. Phil.	Geology.
,,	[1]Alexander Graham, -	Anat.	Geology.	Zoology.
,,	[1]Thomas Dingwall Mackenzie,	Chemist.	Physiol.	Geology.
,,	William Pettigrew M'Pherson,	Chemist.	Physiol.	Geology.
,,	Kathleen Mary Nolan, - -	*Physiol.	Zoology.	Botany.
,,	Wm. Richard Wiseman, M.A.,	Chemist.	*Physiol.	Geology.
,,	William Brown, M.A., -	Anat.	Physiol.	Zoology.
,,	James Mair Frew, M.A., - -	*Math.	Nat. Phil.	Astron.
,,	Thos. Murray MacRobert, M.A.,	*Math.	Nat. Phil.	Astron.
,,	John Clark Middleton, M.A.,	Anat.	Physiol.	*Zoology.
,,	James Moyes, M.A., - -	Chemist.	Geology.	Botany.
,,	Thos. David King Murray, M.A.,	Math.	Nat. Phil.	Astron.
,,	Ralph Montgomery F. Picken,	Anat.	Physiol.	*Zoology.
,,	John Purdie, M.A.,	Math.	Nat. Phil.	Astron.
,,	Jane Helen Ross, M.A., -	Math.	Nat. Phil.	Botany.
,	Geo. D. Campbell Stokes, M.A.,	*Math.	Nat. Phil.	Chemist.
906	John Fotheringham, - - -	Anat.	Physiol.	*Zoology.
,	Robert Hamilton, M.A., - -	*Math.	Nat. Phil.	Astron.
,	Robert Jack, M.A., - - -	*Math.	*Nat. Phil.	*Astron.
,	Neil McArthur, M.A., - -	*Math.	Nat. Phil.	*Astron.
,	John Stewart, M.A., - -	Anat.	Physiol.	*Zoology.
,	David Thomson, M.A., - -	Math.	*Chemist.	Geology.
,	Helen M. Armour, M.A., Scot.,	Geology.	Zoology.	Botany.
	John Henry Brightman, Eng'd,	Math.	Nat. Phil.	Geology.
	Alfred Davidson, Scotland,	Math.	Nat. Phil.	*Chemist.

[1] Graduated B.Sc. in Agriculture, 1902.

* The asterisks indicate Special Distinction in the subjects to which they are prefixed.

		Subjects of Final Examination.			
1906	Andrew Donald, M.A., Scotland,	Chemist.	Geology.	Botany.	
,,	John Frew, M.A., do.,	Math.	*Chemist.	Geology.	
,,	Andrew Henderson, M.A., do.,	Math.	Nat. Phil.	Astron.	Chemist.
,,	John Miller, M.A., - - do.,	*Math.	*Nat. Phil.	*Astron.	
1907	James Robert Brown, - do.,	Math.	Nat. Phil.	Chemist.	
,,	George Green, M.A., - do.,	*Math.	*Nat. Phil.	Astron.	
,,	Andrew Hutchison, M.A., do.,	Math.	Nat. Phil.	Geology.	
,,	John Kaye, - - - do.,	Math.	Nat. Phil	Chemist.	
,,	Andrew M'Millan, M.A., do.,	Math.	Chemist.	Geology.	
,,	Arthur Turnbull, M.A., - do.,	Anat.	Physiol.	Zoology.	
,,	Alfred Ingram Steven, M.A., do.,	Math.	Nat. Phil.	Chemist.	
,,	Wm. Buchan Donald, M.A., do.,	Math.	Nat. Phil.	Chemist.	
,,	Frank Walter Fairlie, - do.,	Math.	Chemist.	*Geology.	
,,	John Lambie, M.A., - do.,	Math.	Nat. Phil.	*Astron.	
,,	William M'Adam, M.A., do.,	Anat.	*Physiol.	Zoology.	
,,	Robert Macfarlane, M.A., do.,	Math.	Nat. Phil.	Astron.	
,,	Donald Macphie, M.A., - do.,	Math.	Nat. Phil.	Astron.	
,,	William Isaac Hutcheon Marr, M.A., - - do.,	Math.	Nat. Phil.	Astron.	
,,	David Burnett Meek, - do.,	*Math.	*Nat. Phil.	*Astron.	
,,	James Paul, M.A., - - do.,	*Math.	*Nat. Phil.	*Astron.	
1908	David Paterson M'Donald, M.A., - do.,	Math.	*Chemist.	*Geology.	
,,	Murray Macgregor, - - do.,	Geology.	Zoology.	Botany.	
,	Jessie Marjorie M'Leish, M.A., do.,	Math.	Nat. Phil.	Botany.	
,,	Leonard James Russell, M.A., England,	*Math.	*Nat. Phil.	Astron.	
,,	Hugh Smith, M.A., Scotland,	Math.	Nat. Phil.	Astron.	
,,	Robert Boyd, - - - do.,	Math.	Nat. Phil.	Chemist.	
,,	John Jackson, M.A., - do.,	*Math.	*Nat. Phil.	*Astron.	*Chemist.
,,	Dorothy Elizabeth Lindsay, do.,	Math.	Chemist.	Physiol.	
,,	William Oswald, M.A., - do.,	Math.	Nat. Phil.	Astron.	
,,	Frank Lesley Robertson, do.,	*Chemist.	Physiol.	Geology.	
,,	Hugo Given Robertson, - do.,	Chemist	Anat.	Zoology.	
,,	Alexander Sym Small, - do.,	Math.	Nat. Phil.	*Chemist.	
,,	Elizabeth Findlay Stevenson, M.A., do.,	Math.	Nat. Phil.	Chemist.	
,,	Andrew Edgar Struthers, do.,	Chemist.	Physiol.	Zoology.	
,,	Maggie Millen Jeffs Sutherland, do.,	Chemist.	*Geology.	Botany.	
1909	Robert Richmond Archibald, M.A., do.,	Anat.	Physiol.	Zoology.	
,,	Robert Gibson, M.A., - do.,	Math.	Nat. Phil.	Botany.	
,,	Margaret Barr Moir, M.A., do.,	*Math.	*Nat. Phil.	*Astron.	
,,	Alex. Smith Russell, M.A., do.,	Math.	Nat. Phil.	Chemist.	
,,	William Alexander Sewell, do.,	Anat.	Physiol.	Zoology.	

---

* The asterisks indicate Special Distinction in the subjects to which they are prefixed.

BACHELORS OF SCIENCE (ENGINEERING).

Ordinance No. [illegible], Section xiii. ([illegible]).

The *Italics* denote Graduates on the Naval Architecture side.
The Small Capitals denote Graduates on the Mining side.

		With Special Distinction in
895	*Daniel Chaplin Nutting.*	
,,	Adam Gowans Whyte.	
896	Oliver Styles.	
,,	James Muir,	Engineering and Drawing Astronomy and Geodesy.
897	John Frederick Black.	
,,	James Henry Grieve	
,,	Peter Lowe.	
898	Andrew Dunn.	
,,	James Weir French.	
,,	*James Paton*	
,,	Owen Richard Williams	
,,	Archibald Morven Macmillan,	Mathematics, Natural Philosophy. Engineering and Drawing
,,	Hugh Wallace,	Mathematics Engineering and Drawing.
,,	Hugh Munro	
,,	John Warrack.	
,,	James Malcolm Bell	
,,	Hjalmar Berg.	
,,	Andrew Marshall Downie	
	John Gordon Henderson	
	Stephen Hutchison.	
	James Rae M'Intosh.	
	John Steel Nicholson.	
	David Robertson,	Engineering and Drawing. Electricity—Pure and Applied
	William Guthrie Strang,	Mathematics. Natural Philosophy. Engineering and Drawing. Geology and Mineralogy.
	William Walker.	
	William Renfrew Wilson.	
	Einar Bull.	
	Charles Stuart Douglas.	
	George Alexander Inglis.	
	William Henry Fullarton Murdoch.	
	William Valentine Shearer.	
	Archibald Craig Walker.	
[illegible]	*John Hutchison Barbour.*	
	Anthony Cathcart Coubrough, M.A.	
	Robert Morton Duer.	
	John Gavin Johnstone.	
	Charles Selby Lennox MacFarlane.	
	Hugh Millar MacMillan.	
	James Vost.	

		With Special Distinction in
1900	Alexander Houston Weddell,	Natural Philosophy. Engineering and Drawing. Electricity—Pure and Applied.
,,	Archibald Leitch.	
,,	John Nanscawen Dawe.	
,,	James Aitchison.	
,,	William Henry Ballantyne,	Electricity—Pure and Applied.
1901	James Craig.	
,,	John Francis Henderson.	
,,	Carolus Marie.	
,,	George Macmillan Young.	
,,	William Bryson.	
,,	Robert Thomson Neilson.	
,,	James Neilson Stirling,	Mathematics. Natural Philosophy.
,,	Andrew Hepburn Whitelaw.	
,,	Alfred John Wilson,	Mathematics. Engineering and Drawing.
1902	William George Burn.	
,,	[1]James Miller Clark, M.A.,	Astronomy and Geodesy.
,,	John Fairley.	
,,	John Clowes Fairlie.	
,,	Thomas Macmillan Hunter, M.A.,	Mathematics.
,,	Duncan Robert MacLachlan,	Engineering Laboratory—Electrical.
,,	Thomas Bonner Morley,	Mathematics. Natural Philosophy. Engineering and Drawing.
,,	James Muirhead,	Engineering and Drawing. Engineering Laboratory—Electrical.
,,	James Valence Nimmo,	Natural Philosophy.
,,	Alexander Williamson.	
,,	Robert Ernest Workman,	Mathematics.
,,	John Graham Young.	
,,	*William M'Gill Gray.*	
,,	William Barnett Harvey.	
,,	William Campbell Houston,	Engineering and Drawing. Electricity—Pure and Applied.
,,	Niel Boyd Macmillan.	
,,	John Findlay Muir.	
,,	*William Frank Robertson.*	
,,	Kouji Satow.	
,,	Frederick Robert Stewart.	
1903	Hugh de Paynesley Birkett.	
,,	William Henry Dorman Bostock.	
,,	William Jackson Crawford.	
,,	Thomas Grant Dempster.	
,,	*James Black Dickie.*	
,,	James Gordon Gray,	Mathematics. Natural Philosophy. Physical Laboratory. Electricity—Pure and Applied.
,,	Charles Henry Lobban.	

---

[1] Graduated B.Sc. in Pure Science, 1901.

	With Special Distinction in
Hugh Alexander Mackay,	
Neil John Maclean,	Natural Philosophy. Engineering and Drawing. Electricity—Pure and Applied.
John Martin,	Engineering Laboratory—Electrical.
Clive Macfarlane Primrose.	
Fryer Thomas Acheson Smyth.	
James Edward Steele.	
James Summers,	Physical Laboratory. Engineering and Drawing. Electricity—Pure and Applied.
John Younger,	Engineering Laboratory—Mechanical.
James Gray,	Natural Philosophy. Physical Laboratory. Electricity—Pure and Applied.
Robert Blair.	
Robert Crichton.	
Richard Frederick Hartley,	Engineering Laboratory—Mechanical.
William Carrick Howat.	
James Howden.	
John Alexander M'Connell.	
John Ernest MacDougall.	
John Alexander Graeme Tarrant.	
Henry Owen Weller.	
Bernard Inman Franklin Adams,	Physical Laboratory.
Robert Douglas Archibald,	Natural Philosophy. Engineering and Drawing.
Hubert Noel Beilby.	
Robert Bilsland,	Physical Laboratory.
Einar Bondevaard,	Physical Laboratory.
John Brown.	
James Richardson Coats.	
Henry James Morrison Cousens,	Mathematics. Natural Philosophy. Physical Laboratory. Engineering and Drawing. Engineering, Class III.
George Mather Craig.	
Bernard Parker Haigh,	Natural Philosophy. Physical Laboratory. Engineering and Drawing. Engineering Laboratory—Electrical.
Harry Fairlie Hodge.	
Duncan John Kerr,	Mathematics. Natural Philosophy. Engineering and Drawing. Electricity—Pure and Applied.
Carlo La Torre.	
John Alexander MacConnell.	
John Maxwell Scott Maxwell.	
Michael Spartali.	
Robert Ure,	Mathematics. Natural Philosophy.

		With Special Distinction in
1904	John Whitehead.	
,,	Sidney Hartley.	
,,	John M'Cance, ...	Physical Laboratory. Engineering and Drawing. Electricity—Pure and Applied.
1905	*Frank Sowter Barnwell.*	
,,	Robert Cuthbertson.	
,,	Fredrick Habler Downie, . . .	Mathematics. Natural Philosophy. Chemistry. Physical Laboratory. Engineering and Drawing. Electricity—Pure and Applied.
,,	John Christopher Dunlop.	
,,	John Dobbie Halliday Dymock.	
,,	Philopemen Georgoussis.	
,,	Alexander Hutchison, ...	Mathematics. Natural Philosophy. Engineering and Drawing. Electrical Engineering.
,,	John Kerr.	
,,	Alexander Lawrance.	
,,	Thomas Muirhead, ...	Natural Philosophy.
,,	Alexander Norwell.	
,,	John Thomson, ...	Engineering and Drawing. Electrical Engineering.
,,	Matthew Graham Anderson, . . .	Mathematics. Natural Philosophy. Physical Laboratory. Electrical Engineering. Engineering and Drawing.
,,	James M'Gee Begg.	
,,	*Alexander Chisholm*, M.A.	
,,	*William Dawson.*	
,,	Thomas Ellis.	
,,	George Henry Forrest.	
,,	Tomochika Iwane.	
,,	John Kirkwood.	
,,	James Macfadzean.	
,,	Charles M'Neil.	
,,	William George Yeaman.	
1906	Andrew Niven Aikman, ...	Physical Laboratory.
,,	Thomas Adams Andrew.	
,,	Andrew Tudhope Clark, ...	Natural Philosophy. Electrical Engineering.
,,	James Alexander Cormack.	
,,	William Campbell Crockatt, . .	Physical Laboratory.
,,	William Francis Maxwell Donald.	
,,	John Hyslop Gardner.	
,,	*John Alexander Henderson.*	
,,	Frederick Laurence Hislop.	
,,	*Robert Gerard Addison Holmes.*	
,,	*William Gilchrist Macbeth.*	
,,	George Gordon Macfarlane.	

		With Special Distinction in
1906	George Herbert Stevenson,	Mathematics Engineering and Drawing Electricity—Pure and Applied.
,,	William Hugh Young, .	Mathematics Natural Philosophy.
,,	George Pate, . .	Electrical Engineering I.
,,	Francis William Scougal.	
1907	*Robert Allan,*	Mathematics.
,,	James Barr	Mathematics Natural Philosophy Physical Laboratory. Engineering and Drawing.
,,	Robert Boyle,	Physical Laboratory Geology and Mineralogy
,,	James Westhall Brown,	Physical Laboratory. Electricity—Pure and Applied
	Henry Richmond Clunie,	Natural Philosophy Physical Laboratory
,,	Frank Stewart Easton,	Physical Laboratory Engineering and Drawing
,,	Alexander Gordon,	Mathematics Physical Laboratory
,,	George Rochfort Grange.	
,,	Hugh Jack, .	Mathematics Physical Laboratory. Engineering and Drawing
,,	Alexander Macdonald, .	Natural Philosophy. Physical Laboratory. Electricity—Pure and Applied.
,,	Charles Calder Mackintosh.	
,,	Alexander MacLaren, .	Physical Laboratory. Engineering and Drawing
,,	Alexander Stephen MacLellan.	
,,	*John Malcolm.*	
,,	Thomas Baird Maxwell,	Mathematics. Natural Philosophy. Physical Laboratory. Engineering and Drawing Engineering III.
,,	GEORGE MILLAR.	
,,	James Mirrey.	
,,	Andrew Irving Nicholson.	
,,	*William Selkirk Owen.*	
,,	Alexander Sutherland Ritchie,	Mathematics.
,,	*Carl William Lupke Rood.*	
,,	Charles Allison Taylor, .	Mathematics Natural Philosophy.
,,	*William Thomson,* . .	Natural Philosophy.
,,	Sebastian Greg Monteith Ure	Physical Laboratory
,,	Andrew Moray Wallace.	

		With Special Distinction in
1907	Robert Wallace.	
,,	Harold Dakin Wheeler.	
,,	Arthur Hamilton Wilson.	
,,	Andrew Fotheringham.	
,,	Jatindra Kumar Das Gupta.	
,,	James MacDougall Mackintosh,	Mathematics.
,,	Norman Macrae.	
,,	William Pate.	
,,	Edwyn James Stiell.	
,,	Archibald Barton Timms.	
1908	George William Bost.	
,,	Robert Mackie Brown.	
,,	Frank Henry Bruges.	
,,	Thomas Buchanan,	Mathematics.
,,	Thomas Wightman Chalmers,	Natural Philosophy. Engineering and Drawing.
,,	David Croll,	Physical Laboratory.
,,	John Whitehead Wilson Drysdale.	
,,	Robert Frew.	
,,	Philip de Havilland Hall.	
,,	Patrick Mackintosh Hogg,	Physical Laboratory.
,,	Charles Lawson Laing.	
,,	William Norman M'Leod.	
,,	WILLIAM HUTCHISON M'MILLAN.	
,,	Nathaniel Martin,	Engineering and Drawing. Geology and Mineralogy.
	Hans Ramm Mörch,	Naval Architecture and Drawing.
,,	*Robert Nicol Norwell.*	
,,	Cleovule Papageorge,	Natural Philosophy. Electricity—Pure and Applied.
,,	*Cleovule Papageorge*,	Natural Philosophy. Engineering IV. and Laboratory.
,,	Joseph William Sommerville,	Natural Philosophy. Geology and Mineralogy.
,,	James Gibb Stewart,	Mathematics. Natural Philosophy. Engineering and Drawing.
,,	John Martin Strang,	Mathematics. Natural Philosophy. Physical Laboratory. Engineering and Drawing. Electrical Engineering I.
,,	*Ernest Sutton*,	Naval Architecture and Drawing.
,,	David Thomson,	Natural Philosophy. Engineering and Drawing.
,,	George Herbert Weller.	
,,	Harold George Wigg.	
,,	Keningale Bertram Wright.	
,,	Frank Aust.	
,,	George Barrett,	Physical Laboratory.
,,	George Begg.	
,,	Hans Raj Dográ.	
,,	Thomas Babington Macaulay.	

		With Special Distinction in
1908	[1] WILLIAM PETTIGREW M'PHERSON.	
..	Philip Emil Phillips.	
..	Robert Rankin,	Electricity—Pure and Applied.
..	Thomas Guthrie Russell	
..	Louis France Marcel Savy,	Physical Laboratory.
..	Lalit Mohan Sen.	
..	Gerald M'Kenzie Stuart Sichel	
..	Edward Archibald Smith.	
..	Herbert Alexander Stewart.	
..	Joseph Young Walls.	
1909	Daniel Dougal Baird	
..	*William Maxwell Balfour.*	
..	Walter Brown, M.A.,	Mathematics. Physical Laboratory.
..	James Davidson Campbell, A.G.T.C.,	Physical Laboratory.
..	Eric Davies	
..	Purna Chandra Ganguly,	Electricity—Pure and Applied.
..	*Theodore Gratchoff.*	
..	Allan Watt Izat	
..	*George Jackson,*	Natural Philosophy. Physical Laboratory. Naval Architecture and Drawing. Engineering IV. and Laboratory.
..	Malcolm Glen Kidston.	
..	*Shigema Kondo.*	
..	*Sergius Lapotnieff,*	Physical Laboratory.
..	Neil M'Caskill, A.G.T.C.	
..	Peter Donald MacFeat,	Engineering and Drawing.
..	James Keppie Riddoch, A.G.T.C.,	Physical Laboratory.
..	*Frederick Francis Schoetensack*	
..	Robert Stewart.	
..	Aliick Lionel Tackley,	Mathematics. Natural Philosophy. Engineering and Drawing. Electrical Engineering I.
..	John Albert Thomson, A.G.T.C.	
..	Harry Hughes Vaughan.	
..	James Wilson,	Geology and Mineralogy.
..	*Edward Vernon Anson Willett.*	

---

[1] Graduated B.Sc. in Pure Science, 1905.

DOCTORS OF MEDICINE (M.D.). (*O.R.*) Honours.

1845	Alexander Lindsay,	Scotland.
,,	James Craigie Murray,	do.
,,	Francis Reynolds,	Ireland.
,,	John Brown,	Scotland.
,,	John Gardiner,	do.
,,	Donald Cameron,	Isle of Man.
,,	Adam Nicholson,	Scotland.
,,	John Duke,	Ireland.
1847	William Parry,	Wales.
,,	Robert Livingstone,	Scotland.
,,	Alexander B. Sharpe,	do.
1848	Charles H. Hitchen,	England.
,,	James Steven,	Scotland.
,,	John Coates,	Ireland.
1849	Robt. Brown M'Clelland,	do.
,,	Thomas Nicholson,	Scotland.
,,	Robert Settle,	England.
,,	Richard Thomas Tracy,	Ireland.
,,	Matthew John Rae,	Scotland.
1850	John Ternan,	Ireland.
,,	John Henry Eddowes,	England.
,,	James Brash,	Scotland.
1851	Alexander Marshall,	do.
,,	Andrew Spearing,	Ireland.
,,	James B. Montgomery,	England.
,,	Robert Perry,	Scotland.
,,	John Watson, B.A.,	do.
1853	John Ritchie Brown,	do.
,,	Charles D. Campbell,	Ireland.
1853	Richard Stanistreet,	Ireland.
,,	David Knox,	do.
1854	John Lindsay Stewart,	Scotland.
,,	James Fraser Paton,	do.
,,	David Easton,	Ireland.
1855	William Leishman,	Scotland.
,,	William J. Lewis,	New Brunswick.
,,	Alexander Robertson,	Scotland.
1857	Thomas Beaumont,	Ireland.
,,	Joseph M. Fleming,	Scotland.
,,	Maxwell Rodgers,	Ireland.
1858	John Couper,	Scotland.
,,	Thomas M'Call Anderson,	do.
1859	Daniel Dougal,	do.
1861	William Marshall,	America.
,,	John M. Murray,	Scotland.
1862	James A. Allan,	do.
1863	Robert M'K. Duncan,	do.
,,	George M'Donald,	do.
,,	Samuel J. Moore,	Ireland.
,,	William Fraser,	Nova Scotia.
,,	T. Algernon Chapman,	Scotland.
,,	Algernon Wood Smith,	do.
,,	John P. Atkinson,	England.
1864	John Wyber,	Scotland.
,,	John G. Wilson, M.A.,	do.
1865	Arthur A. Jamieson,	England.
1867	Fred. H. Quaife, M.A.,	Sydney, N.S.W.

DOCTORS OF MEDICINE (M.D.) (*N.R.*)

1876 [1] Gardner, William, M.B., England.

1877 [1] Turner, William Y., M.B., Scotland. Thesis, "The Ethnology of the Motu."

1879 [1] Fleming, William James, M.B., Scotland. Thesis, "The Dicrotic Notch in Pulse Tracings."

1880 [1] Oliver, Thomas, M.B., Scotland. Thesis, "Heredity viewed in its relation to Responsibility."

1880 [1] Bryce, James, M.B., Scotland. Thesis, "That Mankind originated as a Common Family—most probably on a Continent in the Indian Ocean—certainly within the Tropics."

1881 [1] Adams, James Alexander, M.B., Scotland. Thesis, "Anatomical Relation between Abscess of Brain and Aural Disease."

1881 [1] Stewart, Alexander, M.B., Scotland. Thesis, "History of a Personal Attack of Typhoid Fever."

[1] Commended for Thesis.

881 [1] Drummond, James, M.B., Scotland. Thesis, "Sea Sickness: its Etiology, Symptoms, and Treatment."
881 [1] Macphail, Donald, M.B., Scotland. Thesis, "Chemical Investigations on the Degenerative Changes in Diseased Bone."
882 [1] Cairns, David, M.B. Thesis, "An Outbreak of Pyaemia."
882 [1] Adam, Thomas Bate, M.B., Scotland. Thesis, "The Pathology and Etiology of Elephantoid Disease."
882 [1] Rankin, Guthrie, M.B., Scotland. Thesis, "Puerperal Fever."
883 [1] Inglis, David Wood, M.A., M.B., Scotland. Thesis, "On the Prevention of Lead Poisoning among Workers in White Lead Factories."
883 [1] Newman, David, M.B., Scotland. Thesis, "Displacements of the Kidney."
884 [1] Lawrie, J. Macpherson, M.B., Scotland. Thesis, "On some Symptoms of Locomotor Ataxy."
884 [1] Allan, Robert, M.B., Scotland. Thesis, "Dermoid Cysts."
884 [2] Middleton, George S., M.A., M.B., Scotland. Thesis, "On the Pathology of Pseudo Hypertrophic Muscular Paralysis."
884 [2] Steven, John Lindsay, M.B., Scotland. Thesis, "The Pathology of Suppurative Inflammations of the Kidneys."
885 [2] Mackay, John Yule, M.B., Scotland. Thesis, "The Origin and Development of the Larger Arteries."
885 [1] Maevie, William, M.B., Scotland. Thesis, "Atrophic Infantile Paralysis."
885 [1] Dougal, James, M.B., Scotland. Thesis, "Puerperal Pyrexia."
886 [1] Lawrie, William John, M.B., Scotland. Thesis, "Pathological Formations of the Skin."
886 [2] Somerville, William Francis, M.A., B.Sc., M.B., Scotland. Thesis, "Urosemiotic: the Pathological Chemistry of the Urine, the complete Quantitative Analysis of the Urine; a valuable aid to Clinical Diagnosis."
886 [2] Stewart, Robert Sloss, M.B., Scotland. Thesis, "Observations on the Spinal Cord in the Insane."
86 [1] Rankin, Alexander, M.B., Scotland. Thesis, "Cerebral Cases, with remarks."
86 [1] Auld, Alexander Gunn, M.B., Scotland. Thesis, "Studies in Materia Medica."
87 [1] Chalmers, Archibald Kerr, M.B., Scotland. Thesis, "The Temperature Curve of Specific Fevers."
87 [1] Neilson, Henry John, M.B., Scotland. Thesis, "On the observation of the pupil as a guide in the administration of Chloroform."
87 [1] Brown, John, M.B., Scotland. Thesis, "Maternal Impressions."
87 [1] Love, John, M.B., Scotland. Thesis, "Three Cases of Cortical Epilepsy considered in relation to the localization of the discharging lesion."
88 [1] Finlay, David, M.B., Scotland. Thesis, "Clinical Observations on Epileptic Insanity."
18 [1] Love, James Kerr, M.B. Thesis, "The Limits of Hearing."
18 [1] Macpherson, Charles, M.B., Scotland. Thesis, "Plural Pregnancies."
18 [1] Wallace, William, M.B., Scotland. Thesis, "The Field of Vision: with special reference to its Anomalies in Diseases of the Nervous System."
1 [1] Christie, William Walls, M.B., C.M., Scotland. Thesis, "The Outbreak of Febrile Disease in St. Mary's Roman Catholic Industrial Schools, Glasgow, March 1888: its Clinical Features and Nature."
1 [1] Kelly, James Kellock, M.B., Scotland. Thesis, "Private Obstetric Practice: an analysis of 3000 consecutive cases."
18 [1] Mackenzie, William James, M.B., India. Thesis, "The effects of the conditions of London Life on the Nervous System: with remarks on the treatment."
1 [1] Hinshelwood, James, M.A., M.B., Scotland. Thesis, "A Clinical Study of Syphilitic Diseases of the Nervous System."

---

[1] Commended for Thesis. [2] Highly Commended.

1890 [1] Anderson, John Alexander, M.B., Scotland. Thesis, "On Tetanus: with a record of six cases."

1890 [1] Bankier, Alexander Milne, M.B., England. Thesis, "Influenza."

1891 [1] Smith, John Macdowal, M.B., Scotland. Thesis, "The Disposal of Sewage and City Refuse."

1891 [2] Rhodes, Hugh, M.B., C.M., England. Thesis, "Koch's Treatment in Phthisis and Lupus."

1891 [1] Bannatyne, Gilbert Alexander, M.B., C.M., Scotland. Thesis, "The Treatment of Diphtheria by the Injection of the Erysipelas Albumose."

1891 [1] M'Gregor, Andrew Nicholson, M.B., C.M., Scotland. Thesis, "Some Notes on the Repair of Bone, with special reference to Transplantation and other Artificial Aids."

1891 [1] Ramsay, Andrew Maitland, M.B., C.M., Scotland. Thesis, "Exophthalmic Goitre."

1891 [1] Johnstone, John Carlyle, M.B., C.M., Scotland. Thesis, "Some Notes on the use of Sulphonal."

1892 [1] Highet, Hugh, M.B., C.M., Scotland. Thesis, "The Bronchipneumonia of Influenza, as it occurs in the Adult Subject."

1892 [1] Park, Alexander Glen, M.B., C.M., Scotland. Thesis, "Defects of Speech."

1893 [1] Lang, Hugh, M.B., C.M., Scotland. Thesis, "Empyema, with Notes on a Series of Cases."

1893 [1] Gillies, Hugh Cameron, M.B., C.M., Scotland. Thesis, "The Theory of Counter-irritation."

1893 [2] Carslaw, John Howie, M.A., M.B., C.M., Scotland. Thesis, "On the severer forms of Scarlet Fever, with special reference to Antipyretic Methods of Treatment."

1893 [1] Adam, Robert Hillhouse, M.A., M.B., C.M., Scotland. Thesis, "Observations on some Enteric Fever Epidemics."

1893 [1] Bryce, Alexander, M.B., C.M., Scotland Thesis, "Sanitation in Dairy Farms in relation to diseases attributable to Cows' Milk."

1893 [1] Dunlop, Alexander Watson, M.A., M.B., C.M., Scotland. Thesis, "A recent Epidemic of Smallpox, with some remarks on Re-vaccination."

1893 [1] Gemmell, William, M.B., C.M., Scotland. Thesis, "On the Treatment of Phthisis by a long Sea Voyage in a sailing ship."

1893 [1] Watson, William, M.B., C.M., Scotland. Thesis, "The Prevention and Treatment of Diphtheria."

1894 [1] Johnston, John M'Cubbin, M.A., M.B., C.M., Scotland. Thesis, The Prognosis of Acute Lobar Pneumonia in the Pauper Class."

1894 [2] Jack, William Robert, B.Sc., M.B., C.M., Scotland. Thesis, "Observations on the Analysis of Voluntary Muscular Movements by certain new Instruments."

1895 [1] Abercrombie, Peter Henderson, M.B., C.M., Scotland. Thesis, "Turbinotomy in Nasal Stenosis: Analysis and Notes of 66 cases."

1895 [2] Monro, Thomas Kirkpatrick, M.A., M.B., C.M., Scotland. Thesis, "Essays in Neurology; Historical and Clinical."

1895 [1] Banks, Charles, M.B., C.M., Scotland. Thesis, "Observations on Epidemics of Cholera in India with a special reference to their immediate connection with pilgrimages."

1895 [1] Bell, Andrew Lees, M.B., C.M., Scotland. Thesis, "The Influence of a previous sire, and its relations to maternal impressions."

1895 [1] Campbell, Finlay Stewart, M.B., C.M., Scotland. Thesis, "Paroxysmal Haemoglobinuria: its treatment with special reference to the arrest of the Paroxysm by Quinine."

---

[1] Commended for Thesis. [2] With Honours.

1895 [1] Charles, John, M.B., C.M., Scotland. Thesis, "A contribution to the Meteorology of Sporadic Pneumonia."

1895 [1] Macgregor, John, M.B., C.M., Scotland. Thesis, "On Paralysis following Diphtheria in Children."

1895 [1] Edington, George Henry, M.B., C.M., Scotland. Thesis, "Bile Salts (Glycocholate and Taurocholate Soda) in relation to excretion of Urea, etc."

1895 [1] Hughes, Arthur Davies, M.B., C.M., Wales. Thesis, "Anchylostomiasis."

1895 [1] Marr, Hamilton Clelland, M.B., C.M., Scotland. Thesis, "On Myxoedema and the Functions of the Thyroid Gland: with notes on the treatment of certain cases of Insanity by Thyroid preparations."

1896 [1] Marshall, Robert James, M.B., C.M., Scotland. Thesis, "The mild Malaria Fevers and their Microbe."

1896 [1] Dittmar, Frederick, M.A., M.B., C.M., Scotland. Thesis, "Scarlatinal Albuminuria."

1896 [1] Gray, Albert Alexander, M.B., C.M., Scotland. Thesis, "An Investigation into some of the Principles of Auscultation."

1896 [1] Nisbet, Adam Thomson, M.B., C.M., Scotland. Thesis, "Observations on some cases of Liver Abscess."

1896 [1] Todd, James, M.B., C.M., Scotland. Thesis, "Puerperal Scarlatina."

1896 [1] Kennedy, Robert, M.A., B.Sc., M.B., C.M., Scotland. Thesis, "Studies on the Regeneration of Nerves."

1896 [1] Kirkland, Thomas Speirs, M.B., C.M., Scotland. Thesis, "Quinine Amaurosis."

1897 [1] Don, William Walton, M.B., C.M., England. Thesis, "Thyroid Therapeutics."

1897 [1] Hunter, Walter King, B.Sc., M.B., C.M., Scotland. Thesis, "A contribution to the Etiology of Beri Beri."

1897 [1] Thomson, James, M.B., C.M., Scotland. Thesis, "Exophthalmic Goitre, with special reference to its treatment by Thymus Gland."

897 [1,2] Thomson, Robert Stevenson, B.Sc., M.B., C.M., Scotland. Thesis, "Pertussal Glucosuria, with observations on the reduction of Fehling's solution by the urine in childhood."

898 [1] Brownlee, John, M.A., M.B., C.M., Scotland. Thesis, "The Diagnosis and Hospital Administration of Scarlatina."

897 [1] Galloway, Andrew Fleming, M.B., C.M., Scotland. Thesis, "Moveable Kidney; its Aetiology and Symptoms."

897 [1] Harris, David Fraser, B.Sc., M.B., C.M., Scotland. Thesis, "A Research into the Spectroscopy of Blood pigment, and its derivatives in health and disease."

897 [1] Seright, William, M.B., C.M., Scotland. Thesis, "Neurasthenia (nervous exhaustion): a review of the origin and growth of the term, frequency of the disease, and of its chief forms and classifications, symptoms, diagnosis, prognosis, theories and treatment."

97 [1] Temple, Lewis Dunbar, M.B., C.M., Scotland. Thesis, "Sporadic Cretinism and allied disorders."

97 [1] Wylie, Richard John, M.B., C.M., Scotland. Thesis, "Pneumonia, with notes on twenty-nine cases."

98 [1] M'Kenzie, Daniel, M.B., C.M., Scotland. Thesis, "Endemic Goitre, with particular reference to its occurrence in Lanarkshire, and to its Etiology."

8 [1] Bell, Robert Gordon, M.B., C.M., Scotland. Thesis, "Enteric Studies, chiefly in Aberrant Types."

8 [2,3] Findlay, John Wainman, M.B., C.M., Scotland. Thesis, "The Choroid Plexuses of the Lateral Ventricles, their Anatomy, Functions, and Pathology (in relation specially to Insanity)."

---

[1] Commended for Thesis. [2] With Honours.

[3] Gained a Bellahouston Gold Medal.

1898 [1] Wilson, James Dunlop Octavus, M.B., C.M., Scotland. Thesis, "Adenoid Vegetations in the Nasopharynx; a Clinical and Pathological Study of 214 Cases."

1898 [1] Biernacki, John Thomson, M.B., C.M., India. Thesis, "Secondary Microbic Invasion occurring in the course of the Commoner Fevers."

1898 [1] Thomson, Henry Hyslop, M.B., C.M., Scotland. Thesis, "Epilepsy: a theory as to its probable cause, with some remarks regarding its relation to Insanity and Hysteria."

1898 [1] Webster, Alfred, M.B., C.M., England. Thesis, "Cardiac Inhibition in relation to Cerebral Anæmia and Epileptiform Crises."

1899 [1] Marshall, Campbell Samson, M.B., C.M., Scotland. Thesis, "Antistreptococcus Serum; its application in the treatment of Scarlatina Anginosa."

1899 [1] Primrose, Edward James, M.A., M.B., C.M., Scotland. Thesis, "Notes on the Method and on the Diagnostic Value of the Serum Reaction (Widal's Test) in Enteric Fever; with a record of 149 examinations of Serum made in 57 cases of Enteric Fever, and in 22 other cases."

1899 [23] Hawthorne, Charles Oliver, M.B., C.M., England. Thesis, "Studies in Clinical Medicine."

1899 [1] Blair, David, M.A., M.B., C.M., Scotland. Thesis, "Acromegaly with Insanity."

1899 [1] Gordon, John, M.B., C.M., Scotland. Thesis, "Tuberculin: as a remedy for Lupus, and its position as a Therapeutic Agent in the treatment of Phthisis Pulmonalis."

1899 [1] Kerr, Hugh, M.A., M.B., C.M., Scotland. Thesis, "Recurrent Insanity."

1899 [1] Scott, Robert, M.B., C.M., Australia. Thesis, "A review of Hydatid Disease in Australasia during the decennial period 1888-97."

1899 [23] M'Kendrick, John Souttar, M.B., C.M., Scotland. Thesis, "Zymolysis of Tissue, Physiological and Pathological, with a historical *résumé* of the nature and action of Enzymes."

1899 [23] Scobie, William, M.A., B.D., M.B., C.M., Scotland. Thesis, "The agglutinating reaction in Enteric Fever, with special reference to Prognosis."

1899 [1] Gray, John Gilchrist, M.B., C.M., Scotland. Thesis, "Albuminuria and Nephritis occurring in connection with Scarlet Fever in combination with Varicella, the Varicella occurring during the acute stage or during the period of convalescence."

1899 [1] Macharg, William Edgar, M.B., C.M., Scotland. Thesis, "An analytical account of fifty-seven cases of Puerperal Infection."

1899 [1] Ormond, James Service, M.B., Ch.B., Australia. Thesis, "Some results of treatment as illustrated by the Sphygmograph."

1900 [23] James Fairlie Gemmill, M.A., M.B., C.M., Scotland. Thesis, "A Teratological Study."

1900 [1] James Adam, M.A., M.B., C.M., Scotland. Thesis, "Remarks on the nature and treatment of Asthma."

1900 [1] William Carrick Allan, M.B., C.M., Scotland. Thesis, "Extra-Uterine Pregnancy."

1900 [1] John Laird Yuill, M.B., C.M., Scotland. Thesis, "On the Mental Deterioration in Epilepsy and Hemiplegia."

1900 [1] Leslie Buchanan, M.B., C.M., Ireland. Thesis, "Cyclitis: a Study of the inflammatory exudates into the vitreous body in cases of Cyclitis."

1900 [1] Malcolm Alexander M'Intyre Sinclair, M.B., C.M., England. Thesis, "A Study in Aphasia, with special reference to some of its transitory manifestations."

---

[1] Commended for Thesis. [2] With Honours.

[3] Gained a Bellahouston Gold Medal.

00 [1] Annie Louise M'Ilroy, M.B., Ch.B., Ireland. Thesis, "Tubal Gestation: its pathology and diagnosis, as illustrated by the record of twenty-two cases."

01 [1] Alfred George Newell, M.B., C.M., India. Thesis, "Insanitary Areas and Houses in Bombay and their relation to Plague, with schemes for improvement of Areas."

01 [2][3] David Louis Cairns, M.B., Ch.B., Scotland. Thesis, "Researches on the agglutinating and prophylactic properties of Blood Serum in cases of Plague, with observations on the haematology and bacteriology of the disease."

01 [1] John Aitken, M.B., Ch.B., Scotland. Thesis, "Blood Counts in the New Born."

01 [1] Arthur James Ballantyne, M.B., Ch.B., Scotland. Thesis, "Affections of the Eye due to injury by blunt objects."

01 [1] George Coats, M.B., Ch.B., Scotland. Thesis, "Unilateral Haemorrhagic Retinitis and Haemorrhagic Glaucoma."

01 [1] John Henderson, M.B., Ch.B., Scotland. Thesis, "Observations on the Maternal Blood at term and during the puerperium."

01 [1] James Donald Rae Monro, M.A., M.B., C.M., Scotland. Thesis, "A study of Appendicitis in general practice, with an analysis of thirty-six cases."

2 [2][3] Alexander Robert Ferguson, M.B., C.M., England. Thesis, "The Leucocytosis of Variola, with a study of the haematopoietic organs in the disease, and also of the lesions of the skin."

2 [1] Andrew Wilson, M.B., C.M., Scotland. Thesis, "A clinical study of the relation of Syphilis to Diseases of the Eye."

2 [1] Andrew Colville Wilson, B.Sc., M.B., C.M., Scotland. Thesis, "The Medullated Fibres of the Cerebral Cortex."

3 [2][3] George Lamb, M.B., C.M., Scotland. Thesis, "On the action of the venoms of the Cobra (Naja Tripudiana) and of the Daboia (Daboia Russellii) on the red blood corpuscles and on the blood plasma."

3 [2][1] William Glen Liston, M.B., Ch.B., India. Thesis, "Aetiology of Malaria."

3 [1] Charles Campbell Cuthbert, M.A., M.B., Ch.B., Scotland. Thesis, "A clinical study of Renal cases."

[1] James M'Hattie, M.B., Ch.B., Scotland. Thesis, "On the complications occurring in 600 consecutive cases of Scarlatina."

[1] Jean Ellie Prowse, M.B., Ch.B., England. Thesis, "The relation of Vesicular Mole to Chorion Carcinoma."

[2][3] John Hammond Teacher, M.A., M.B., C.M., Scotland. Thesis, "On Chorionepithelioma and the occurrence of Chorionepitheliomatous and Hydatidiform Mole-like structures in Teratomata: a Pathological and Clinical study."

[1] George Morris Crawford, M.B., Ch.B., Scotland. Thesis, "Nitrogen Excretion in Diphtheria."

9 [1] Reginald Nairn Dunlop, M.B., Ch.B., Scotland. Thesis, "An Analysis of fifty cases of Eclampsia."

90 [1] Arthur Robin, M.B., Ch.B., Scotland. Thesis, "A contribution to the Haematology of Puerperal Fever, with some observations on the influence of the intravenous injection of Antistreptococcic Serum."

[1] Donald Sage Sutherland, M.B., Ch.B., Scotland. Thesis, "An investigation into the specific Etiology of Scarlet Fever."

90 [1] Malcolm Watson, M.B., C.M., Scotland. Thesis, "The effect of Drainage and other Measures on the Malaria of Klang, Federated Malay States."

[1] Commended for Thesis.

[2] With Honours.

[3] Gained a Bellahouston Gold Medal.

1904 [1] Adam Brown Kelly, M.B., C.M., D.Sc., Scotland. Thesis, "Contribution to the Pathology and Diagnosis of certain Affections of the Antrum o Highmore."

1904 [1] Daniel Macpherson Taylor, M.A., M.B., C.M., Scotland. Thesis, "Sympathetic Ophthalmitis after Preventive Enucleation."

1904 [1] Ernest Alexander Walker, M.A., M.B., C.M., Scotland. Thesis, "Ten Successive Laparotomies: their History, Clinical Aspects, and Technique."

1904 [2 3] Harry Egerton Brown, M.B., Ch.B., Scotland. Thesis, "The Brain i Idiocy."

1904 [2 3] Edward Provan Cathcart, M.B., Ch.B., Scotland. Thesis, "On the occurrenc of Antibodies to Ferments in the Normal Blood Serum, with specia reference to Antitrypsine."

1904 [1] Leonard Findlay, M.B., Ch.B., Scotland. Thesis, "Clinical and Pathologica Study of a case of General Tuberculosis, complicated by the presence o Ganglionic Neurogliomata in the Brain, and a Peculiar Vacuolar Degeneration of the Myocardium."

1904 [1] James Dunlop Lickley, M.B., Ch.B., England. Thesis, "The Huma Sternum."

1904 [1] Andrew Love, M.B., Ch.B., Scotland. Thesis, "An Investigation into th Leucocytosis of Typhus Fever, with observations on the changes presen in the bone marrow, spleen and lymphoid tissues."

1904 [1] Murdoch Macdonald, M.B., Ch.B., Scotland. Thesis, "A Report on th Clinical and Bacteriological Features of Vincent's Angina, with Notes of Cases."

1904 [1] Walter Lewis Thomson, M.B., Ch.B, Scotland. Thesis, "Bacteriologica Investigation of a School Outbreak of Diphtheria, with special referenc to the Hoffmann Bacillus."

1905 [2] William Herbert Brown, M.B., Ch.B., Scotland. Thesis, "A Clinical Study of the Glycogenic Reaction in Blood."

1905 [2] John James Buchan, M.B., Ch.B., Scotland. Thesis, "Bacteriuria i Enteric Fever."

1905 [2 3] Edward Seymour Chapman, M.B., Ch.B., England. Thesis, "A Histological Study of the Kidney in Scarlatina."

1905 [2 3] Thomas Divine, M.B., C.M., Scotland. Thesis, "An Inquiry into Infantil Mortality, with special reference to its Causation and Prevention."

1905 [2 3] William Barr Inglis Pollock, M.B., Ch.B., Scotland. Thesis, "A Bacteriological and Clinical Study of Conjunctivitis."

1905 [1] George Balfour Eadie, M.B., Ch.B., Scotland. Thesis, "Tuberculosis of th Myocardium."

1905 [1] Donald M'Farlane Livingstone, M.B., Ch.B., Scotland. Thesis, "Traumati Ulcer of the Cornea."

1905 [1] Robert Macnab Marshall, M.B., Ch.B., Scotland. Thesis, "A Clinical an Pathological Study of an unusual case of Progressive Muscular Dystrophy—type facio-scapulo-humeral with special reference to its Nosology and Pathogeny."

1905 [1] Allan Martin, M.A., B.Sc., M.B., Ch.B., Scotland. Thesis, "The Field of Vision, with special reference to Bjerrum's Screen, with accompanying Charts."

1905 [1] James Blakely Miller, M.B., Ch.B., Scotland. Thesis, "Observations on the Blood in Acute Lobar Pneumonia."

1905 [1] Robert Niven, M.B., Ch.B., Scotland. Thesis, "Smallpox: a Clinical Study of about 2000 cases of the disease."

1905 [1] David Russell, M.B., Ch.B., Scotland. Thesis, "A Study of the Blood in Postmalarial Anæmia as observed in the South of Spain."

---

[1] Commended for Thesis.
[2] With Honours.
[3] Gained a Bellahouston Gold Medal.

05 [1] John Strathearn, M.B., Ch.B., Scotland. Thesis, "On Obstruction of the Central Artery of the Retina."
05 [1] Thomas Bird Tierney, M.B., Ch.B., Scotland. Thesis, "The Leucocytosis of Pertussis."
05 [1] John Wotherspoon, M.B., Ch.B., Scotland. Thesis, "A Contribution to the Study of the Formation and Properties of Nephrotoxins."
06 [1] Madge Speirs Maclean, M.B., C.M., Scotland. Thesis, "A Clinical Study of an Outbreak of Diphtheria occurring in an Orphanage."
06 [2,4] David Maclure Cowan, M.B., Ch.B., Scotland. Thesis, "The Diagnosis of Typhoid Fever by Clinical, Haematological, and Bacteriological Methods."
06 [2,4] Lizzie Thomson Fraser, M.B., Ch.B., Scotland. Thesis, "On the Value of the Tuberculo-opsonic Index in Diagnosis."
05 [1] Alexander Gray Banks, M.B., Ch.B., Scotland. Thesis, "The Variations in Scarlet Fever of the Opsonic Power for Streptococci."
06 [1] Robert Stobo, M.B., C.M., Scotland. Thesis, "The Contributory Causes of Pulmonary Tuberculosis."
07 [2,3] Carl Hamilton Browning, M.B., Ch.B., Scotland. Thesis, "Chemotherapy in Trypanosome Infections: an Experimental Study."
07 [2,4] Robert May, M.B., Ch.B., Scotland. Thesis, "Acute Rheumatism: enquiry into the action of Salicylic Acid and Allied Agents used in its Treatment."
07 [1] Francis James Charteris, M.B., Ch.B., Scotland. Thesis, "Experiments on Phagocytosis in Vitro."
7 [1] Thomas Hunter, M.A., B.Sc., Ch.B., Scotland. Thesis, "Leprosy: some Notes on its Causation, Symptoms, and Treatment, based on an experience of 152 Lepers in the Leper Jail of the United Provinces, India."
7 [1] John Muir Kelly, M.B., Ch.B., Scotland. Thesis, "A Critical Study of Organic Preparations of Silver in the Treatment of Conjunctivitis."
7 [1] David James M'Leish, M.A., B.Sc., M.B., Ch.B., Scotland. Thesis, "Cerebro-Spinal Meningitis, with special reference to the Epidemic variety: a study of 32 cases seen in the Sick Children's Hospital, Glasgow."
8 [2,4] Alexander Stuart Murray M'Gregor, M.B., Ch.B., Scotland. Thesis, "Immunity Phenomena in Cerebro-Spinal Meningitis."
8 [2,4] Thomas Orr, B.Sc., M.B., Ch.B., Scotland. Thesis, "The Sources of Contamination of the Milk Supply."
1 [1] William Dow, M.B., Ch.B., Scotland. Thesis, "Epidemic Cerebro-Spinal Meningitis, 1906-7: A Clinical Description, together with an Investigation into the Leucocytosis."
19 [1] William Rolland, M.B., Ch.B., Scotland. Thesis, "Aneurysm of Hepatic Artery."
19 [1] George Goldie Smith, B.Sc., M.B., Ch.B., Scotland. Thesis, "The Nature and More Immediate Effects of the Pus in Cerebro-Spinal Fever."
19 [1] John Williamson Smith, M.B., Ch.B., Scotland. Thesis, "The Polymorpho-Nuclear Leucocytes in Suppurative conditions of the Middle Ear."
190 [1] William Norman West Watson, M.B., Ch.B., England. Thesis, "Some Observations on Haemalkalimetry in Malignant Disease."
19 [2] Andrew Connal, M.B., Ch.B., Scotland. Thesis, "A Study of the Cerebro-Spinal Fluid, in the Infective Diseases of the Meninges, with special reference to Cerebro-Spinal Fever."
19 [1] John Martin Munro Kerr, M.B., C.M., Scotland. Thesis, "Operative Midwifery."
1 [1] James Chalmers, M.B., C.M., Scotland. Thesis, "Puerperal Eclampsia."
1 [1] Daniel Craig, M.B., C.M., Scotland. Thesis, "Ankylostomum Dermatitis."

---

[1] Commended for Thesis.
[2] With Honours.
[4] Gained a Bellahouston Gold Medal.
[3] Highly Commended for Thesis.

BACHELORS OF MEDICINE (M.B.). HONOURS.

1866	Robert W. Forrest,	Scotland.
,,	Henry T. Pringle,	,,
1867	Ebenezer Duncan,	,,
,,	Joseph Coats,	,,
,,	James Finlayson,	,,
1868	Thomas Barr,	,,
,,	William MacLachlan,	,,
,,	Angus Macmillan,	,,
1869	James Coats,	,,
1871	David Wilkie,	,,
,,	John Aikman,	,,
1872	John D. Macdonald,	,,
,,	Samson Gemmell,	,,
1876	Geo. S. Middleton, M.A.,	,,
,,	Richard B. Macpherson,	,,
1877	Johan B. Knobel,	Africa.
,,	Donald Macphail,	Scotland.
,,	John Carlyle Johnstone,	,,
,,	Edward D. M. Mackellar,	,,
1878	Alexander Fraser,	,,
,,	James Morton,	,,
,,	William Partington,	,,
,,	Lawrence A. Waddell,	,,
1879	William K. Peden,	,,
,,	Ralph D. Stevenson,	Australia.
1880	Andw. A. Hogarth, M.A.,	Scotland.
,,	J. M'Gregor-Robertson, M.A.,	,,
,,	John Lindsay Steven,	,,
1881	John More Young, M.A.,	,,
1882	Robert Beith,	,,
1883	John Innes Dunlop,	,,
1884	Charles O. Hawthorne,	England.
1886	Alexander Bryce,	Scotland.
,,	Wm. Snodgrass, M.A.,	U.S.A.
,,	John H. Carslaw, M.A.,	Scotland.
1887	William MacLennan,	,,
1891	Hugh Galt,	,,
,,	Robert Currie Robertson, M.A.,	,,
1892	John Morton,	Scotland.
,,	James Carslaw, M.A.,	,,
1894	Alexander MacLennan,	,,
,,	Wm. Stewart Cook, B.Sc.,	,,
,,	Jas. C. Robertson, M.A., B.Sc.,	Scotland.
,,	Jas. Murray Young,	,,
,,	John Francis Robt. Gairdner,	,,
,,	John Wainman Findlay,	,,
1895	Joshua Ferguson, M.A.,	,,
1895	Henry Alex. Pattullo,	Scotlan
,,	Ernest A. Walker, M.A.,	,,
1896	John Knight,	,,
,,	Madge Speirs Maclean,	,,
1897	John A. C. Macewen, B.Sc.,	,,
,,	Thomas Hunter, M.A., B.Sc.,	,,
1898	Wm. Kilpatrick Hutton, M.A.,	,,
,,	Robert Fullarton, M.A.,	,,
,,	William Webster,	,,
1899	Alex. Laurie Watson, M.A.,	,,
1900	Charles Campbell Cuthbert, M.A.,	,
,,	James Dunlop Lickley,	Englan
1901	Alex. Dey Thompson,	Scotlan
,,	William Macalister Brown,	,,
1902	Andrew Miller Kerr,	,,
,,	Joseph White, M.A., B.Sc.,	,,
,,	John Morison,	India
1903	Spencer Mort,	Scotlan
,,	Alex. Matheson, M.A., B.Sc.,	,,
,,	Wm. D. H. Stevenson, M.A.,	Indi
,,	Carl H. Browning,	Scotlan
,,	Peter L. Sutherland,	,,
1904	Robt. Buchanan Carslaw, M.A.,	,
,,	George Munn Gray,	,
1905	George A. Allan,	,
,,	William B. M. Martin,	Irelan
,,	James H. Baird, B.A.,	New Zealan
,,	John S. Dunn, M.A.,	Scotlan
,,	William Rolland,	,,
1906	Robert Stewart M'Kim, M.A.,	,,
,,	Peter Mitchell, M.A.,	,,
,,	John Stevenson,	,,
1907	Matthew John Stewart,	,,
,,	Matthew Young,	,,
,,	David A. Thomson, M.A.,	,,
,,	John C. Middleton, M.A., B.Sc.,	,,
1908	John Cruickshank,	,,
,,	Arch. Campbell Munro,	Englan
,,	Ralph Montgomery Fullarto Picken, B.Sc.,	Scotlan
,,	Peter Russell M'Naught,	,,
,,	Adam Patrick, M.A.,	,,
,,	Neil Campbell Scott,	,,
,,	Robert Macnair Walker,	,,
1909	George Macleod, M.A.,	,,
,,	William Howat, M.A.,	,,
,,	Mat. Ignatus Thornton Cassidy,	,,

BRUNTON MEMORIAL PRIZE OF £10,

warded to the most distinguished Graduate in Medicine of the year.

80. John Lindsay Steven, M.B., C.M.
81. John More Young, M.A., M.B., C.M.
82. Robert Beith, M.B., C.M.
83. John Innes Dunlop, M.B., C.M.
84. Charles Oliver Hawthorne, M.B., C.M.
85. Andrew Wilson, M.B., C.M.
86. Alexander Bryce, M.B., C.M.
87. William MacLennan, M.B., C.M.
88. Landel Rose Oswald, M.B., C.M.
89. William Robert Jack, B.Sc., M.B., C.M.
0. George Lamb, M.B., C.M.
1. Hugh Galt, M.B., C.M.
2. John Morton, M.B., C.M.
3. John Johnson Urwin, M.B., C.M.
4. Alexander MacLennan, M.B., C.M.
5. Joshua Ferguson, M.A., M.B., C.M.
6. John Knight, M.B., C.M.

1897. John Allan Craigie Macewen, B.Sc., M.B., C.M. } Equal
,, Thomas Hunter, M.A., B.Sc., M.B., Ch.B. } Equal
1898. William Kilpatrick Hutton, M.A., M.B., C.M.
1899. Alex. Laurie Watson, M.A., M.B., Ch.B.
1900. Charles C. Cuthbert, M.A., M.B., Ch.B.
1901. Alex. Dey Thompson, M.B., Ch.B.
1902. Andrew Miller Kerr, M.B., Ch.B.
1903. Spencer Mort, M.B., Ch.B.
1904. Robert B. Carslaw, M.A., M.B., Ch.B.
1905. George Allison Allan, M.B., Ch.B.
1906. Peter Mitchell, M.A., M.B., Ch.B.
1907. Matthew John Stewart, M.B., Ch.B.
1908. John Cruickshank, M.B., Ch.B.

THOMAS LOGAN MEDAL AND PRIZE,

Awarded to the most distinguished Graduate in Arts of the year.

18. Ernest Findlay Scott, M.A.
8. Alfred Ernest Garvie, M.A.
8 John Edgar M'Fadyen, M.A.
James Holm, M.A.
Daniel Lamont, M.A.
Gilchrist Gibb Alexander, M.A.
Henry Noel Brailsford, M.A.
William King Gillies, M.A.
George Donald Valentine, M.A.
Gavin Scott, M.A.
John Lyle Morison, M.A.
John Lochhead, M.A.
0 Mabel Atkinson, M.A.

1901. Dougald Black M'Quistan, M.A.
1902. William Lindsay Thompson, M.A.
1903. William Sutherland, M.A.
1904 { Robert Nicol Cross, M.A.
William Manson, M.A.
John Miller, M.A. (Beith).
1905. { James Carrick Miller Fairlie, M.A.
Constance Helen Margaret Archibald, M.A.
1906. Thomas Beaumont, M.A.
1907. John M'Whan, M.A.
1908. Bryce K. N. Wyllie, M.A.

XIII.—DEGREE AND PRIZE LIST.

LIST OF DEGREES

Conferred in the various Faculties and of Prizes and Certificates of Honour Awarded in the several Classes of the University from 1st May, 1908, to 9th June, 1909.

DOCTORS OF DIVINITY (D.D.).

June, 1909.

Rev. Robert Borland, Minister of Yarrow.

Rev. Robert Kilgour, B.D., late Missionary of the Church of Scotland at Darjeeling, India, now Editorial Superintendent of the British and Foreign Bible Society.

Rev. John Willcock, B.D., Minister of St. Ringan's United Free Church, Lerwick.

DOCTORS OF LAWS (LL.D.).

June, 1908.

His Grace the Duke of Argyll, P.C., K.T., G.C.M.G., G.C.V.O., LL.D.

The Right Hon. the Earl of Elgin, P.C., K.G., G.C.S.I., LL.D., D.C.L.

The Right Hon. Baron Newlands, M.A., D.L., Honorary Fellow of Balliol College, Oxford.

June, 1909.

Robert Smith Allan, Shipowner in Glasgow, Chairman of the Glasgow School Board, and of the Glasgow Provincial Committee for the Training of Teachers.

James Gairdner, C.B., Historian.

John Harrower, M.A., Professor of Greek in the University of Aberdeen.

William Henry Maw, M.Inst.C.E., F.R.G.S., F.R.A.S., Past President of the Institution of Mechanical Engineers, Past President of the Royal Astronomical Society, and Joint-Editor of "Engineering."

Sir John Maxwell Stirling-Maxwell, B.A., of Pollok, Bart.

The Right Hon. Baron Pentland of Lyth, Secretary for Scotland.

Charles Scott Sherrington, M.A., M.D., F.R.S., Professor of Physiology in the University of Liverpool.

William Strang, A.R.A., Vice-President of the International Society of Painters, Sculptors, and Engravers.

BACHELORS OF DIVINITY (B.D.).

November, 1908.

William Clark, M.A.

Alexander Pender Crichton, M.A.

William Paterson, M.A.

Archibald Shaw, M.A.

April, 1909.

James Robertson Buchanan, M.A.
Richard Clayton Corrie, M.A.
Thomas Forrest Harkness Graham, M.A.
James Robert Lee, M.A.
Robert Ewing Lee, M.A.
Robert Robertson Lindsay, M.A.
Alexander MacLean, M.A.
David Walker M'Lean, M.A.
Alexander Mauchline, M.A.
Matthew Stewart, M.A.
Thomas Sutherland, M.A.
Andrew Templeton, M.A.
William Kay White, M.A.

June, 1909.

John M'Pherson Fleck, M.A.

BACHELORS OF LAWS (LL.B.)

November, 1908.

Alexander Brown, M.A.
James Campbell Burton, M.A.
John Cameron, M.A.
George Richmond Herbertson, M.A.
John Hogg, M.A.
James Keith, M.A.
Albert Russell, M.A.

April, 1909.

David Hardie Battersby, M.A.
William Gillies, M.A.
Ebenezer Maitland Maclaig, M.A.
George Stanley Milne, M.A.
Henry Glassford Bell Spens, M.A.[1]
John William Taylor, M.A.[1]
David Johnston Wallace, M.A.
John Charles Watson, M.A.

June, 1909.

Robert Whyte Roxburgh, M.A.

BACHELORS OF LAW (B.L.)

November, 1908.

James Alison Gordon, M.A.[1]
Maurice James M'Cracken.
Alexander Cunningham Wilson.

April, 1909.

David Ernest Brand.
Thomas Bell Cameron, M.A.
Joseph Davidson, M.A.
George Sutherland Fraser, M.A.
Joseph Shaughnessy.
Thomas White.
Douglas Hamilton Wilson, M.A.

DOCTORS OF MEDICINE (M.D.).

July, 1908.

Edward Napier Burnett, M.B., C.M., Scotland. Thesis, "Chorionepithelioma, a Disease of Pregnancy."

Robert Clarke, M.B., C.M., Ireland. Thesis, "The Paralyses of the Mother due to Pregnancy and the Puerperium, with illustrative cases, and an examination of 100 consecutive cases for Motor and Sensory Disturbances."

ames Eric Wilson, M.B., C.M., Scotland. Thesis, "A Review of 65 Fatal Cases of Pulmonary Tuberculosis."

November, 1908.

I. WITH HONOURS

lexander Stuart Murray Macgregor, M.B., Ch.B., Scotland. Thesis, Immunity-Phenomena in Cerebro Spinal Meningitis."

homas Orr, B.Sc., M.B., Ch.B., Scotland. Thesis, "The Sources of Contamination of the Milk Supply."

---

[1] With Distinction.

II. With Commendation.

William Dow, M.B., Ch.B., Scotland. Thesis, "Epidemic Cerebro-Spinal Meningitis, 1906-7; A Clinical Description, together with an Investigation into the Leucocytosis."

William Rolland, M.B., Ch.B., Scotland. Thesis, "Aneurysm of Hepatic Artery."

George Goldie Smith, B.Sc., M.B., Ch.B., Scotland. Thesis, "The Nature and More Immediate Effects of the Pus in Cerebro-Spinal Fever."

John Williamson Smith, M.B., Ch.B., Scotland. Thesis, "The Polymorpho-Nuclear Leucocytes in Suppurative Conditions of the Middle Ear."

William Norman West Watson, M.B., Ch.B., England. Thesis, "Some Observations on Haemalkalimetry in Malignant Disease."

III. Ordinary Degree.

William Boyd Jack, M.B., Ch.B., Scotland. Thesis, "Neuritis: A Clinical and Pathological Study."

John Lambie, M.B., Ch.B., Scotland. Thesis, "The Etiology and Prevention of Return Cases of Scarlet Fever."

David M'Kail, M.B., Ch.B., Scotland. Thesis, "Extrinsic and Intrinsic conditions affecting School Children: A Study of some Schools and School Children in Glasgow."

Maud Hamilton Spencer (Mrs. M'Naughton), M.B., Ch.B., Scotland. Thesis, "The uses of the Röntgen Rays in the examination of the Stomach, with special reference to Infants and Young Children."

Joseph Walker, M.A., M.B., Ch.B., Scotland. Thesis, "The Ophthalmo-Reaction to Tuberculin."

Peter Millar Waugh, M.B., Ch.B., Scotland. Thesis, "Clinical Notes and Observations on Migraine."

April, 1909.

I. With Honours.

Andrew Connal, M.B., Ch.B., Scotland. Thesis, "A Study of the Cerebro-Spinal Fluid, in the Infective Diseases of the Meninges, with special reference to Cerebro-Spinal Fever."

II. With High Commendation.

John Martin Munro Kerr, M.B., C.M., Scotland. Thesis, "Operative Midwifery."

III. With Commendation.

James Chalmers, M.B., C.M., Scotland. Thesis, "Puerperal Eclampsia."

Daniel Craig, M.B., C.M., Scotland. Thesis, "Ankylostomum Dermatitis."

IV. Ordinary Degree.

Alexander Blair, M.B., C.M., Scotland. Thesis, "Paralysis of Peripheral Origin in Pregnancy and the Puerperium."

John Morton Buchanan, M.B., C.M., Scotland. Thesis, "Industrial Diseases in connection with the Manufacture of Sodium and Potassium Bichromates."

Gavin M'Callum, M.B., C.M., Scotland. Thesis, "A contribution to the subject of Cavernous Angioma and its Treatment."

James Campbell M'Clure, M.B., C.M., Scotland. Thesis, "A Study of the Aetiology and Symptomatology of Scarlatinal Rheumatism."

BACHELORS OF MEDICINE AND BACHELORS OF SURGERY (M.B., Ch.B.).

July, 1908.

I. Honours.

1. John Cruickshank,[1]	Scotland.	4. Peter Russell M'Naught,	Scotland
2. Archibald Campbell Munro,	England.	5. Adam Patrick, M.A.,	..
		6. Neil Campbell Scott,	..
3. Ralph Montgomery Fullarton Picken, B.Sc.,	Scotland.	7. Robert M'Nair Walker,	..

II. Commendation.

8. Albert Rutherford Paterson,	Scotland	14. Arthur Drummond Downie, M.A.,	Scotland.
9. John Lindsay Boyd,	..	15. James Walker M'Leod,	..
10. Walter Hermann Kiep,	..	16. Walter Colquhoun,	..
11. Benjamin Hutchison,	..	17. John Fotheringham, B.Sc.,	..
12. Jessie Capie Russell,	..	18. William Barrie Brownlie,	..
13. Alfred Cecil Sharp,	England.		

III. Ordinary Degrees.

David Anderson,	Scotland	James M'Millan M'Millan,	Scotland.
William Anderson,	..	John MacMillan,	..
Thomas Archibald,	..	Donald Irvine M'Naughtan,	Australia.
William Barr,	..	William Aubrey Lavard Marriott,	England.
Charles Bennett,	..		
John Blakely,	..	Kenneth Chisholm Middlemiss,	Scotland
Hector Mackay Calder,	South Africa.		
James Carrick,	Scotland.	Allan Frederick Miller,	..
Donald Clark,	..	William Aikman Muir,	..
James Cook (Coalburn),	..	Charles Sutherland M'Kay Murison,	Spain.
James Cook (Partick),	..		
Margaret Baird Sproul Darroch,	..	Watson Noble,	Scotland
		Murray Purvis,	..
Walter Dawson,	..	Edward Quigley,	..
Richard John Driscoll,	Tasmania.	Richard Rae,	..
William Miller Fairlie,	Scotland.	Nicol M'Nicoll Rankin,	..
George Muir Fraser, M.A.,	..	James Brown Sim,	England
Josiah Stranaghan Harbinson,	Ireland.	James Alexander Stenhouse,	Scotland.
Stephen John Henry,	Scotland.	William Stevenson,	..
Alexander Mills Kennedy,	..	Hugh Cochrane Storrie,	..
John Lang,	..	David Taylor,	..
George Ligertwood,	..	Walter Telfer,	..
Daniel Conway M'Ardle,	..	John Shedden Thomson,	..
Frank Crombie Macaulay,	..	John Morris Walker,	..
Robert M'Carlie,	..	Thomas Charles Dalrymple Watt,	..
Joseph Glaister M'Cutcheon,	..		
John Henry M'Kay,	..	Thomas Macknight Watt,	..
William M'Kendrick,	..	David John Williams,	England.
Francis William Mackichan,	..	Hugh Mundle Wilson,	Scotland
William Campbell Mackie,	..	Hugh Young,	..
John James Mackintosh,	..		

[1] Mr. Cruickshank gained the Brunton Memorial Prize of Ten Pounds awarded to the most distinguished Graduate in Medicine of the year.

December, 1908.

I. COMMENDATION.

1. Hugo Given Robertson, B.Sc., Scotland.
2. Wm. Leonard Forsyth, Scotland.

II. ORDINARY DEGREES.

Alexander Ballantyne, M.A.,	Scotland.
Alexander Beck Cluckie,	,,
James Kirkwood Dunlop, M.A.,	,,
Robert Dunlop Black Frew,	,,
William Ernest Gemmell,	,,
Alexander Thomas Arthur Gourlay,	,,
David Hamilton,	,,
Michael Harkin,	Ireland.
Thomas Harkin,	,,
John Mitchell Henderson,	Scotland.
John M'Lean Hendry,	,,
James Hall Hislop,	,,
Katharine Robina Margaret Lucas,	England.
Ernest Bowman Macaulay,	Scotland.
Coll Macdonald,	,,
James M'Donald,	,,
Hugh MacNaught,	,,
Murdo M'Kenzie M'Rae,	,,
Andrew Maguire,	,,
William Matheson,	,,
Robert M'Kenzie Morison, M.A.,	,,
Allan Semple,	,,
Donald Stewart,	,,
Jeanie Hinshaw Stewart,	,,
John Youngson Wood,	England.

April, 1909.

I. HONOURS.

1. George Macleod, M.A., Scotland.
2. William Howat, M.A., ,,
3. Matthew Ignatius Thornton Cassidy, Scotland.

II. COMMENDATION.

4 William Wilson Rorke, Scotland.
5. Arthur Turnbull, M.A., B.Sc., Scotland.
6. John Allan, Scotland.

III. ORDINARY DEGREES.

James George Anderson,	Scotland.
William Hunter Stirling Armstrong,	,,
Douglas Morris Borland,	,,
Morris William Browdy,	England.
John Adam Gib Burton,	Scotland.
John Cameron,	,,
Weir Burns Cunningham,	,,
James Cowie Dick,	,,
Alexander Gordon Gilchrist,	,,
George Stevenson Gordon,	,,
Edward O'Driscoll Graham,	Ireland.
James Harper, M.A.,	Scotland.
John Parlane Kinloch,	Scotland.
David Neilson Knox,	,,
Alex. Macphail Macdonald,	,,
Murdo Duncan Mackenzie,	,,
Allan M'Pherson,	,,
Thomas Marlin,	,,
Henry Nimmo Rankin,	,,
Alfred Roemmele,	,,
William Rutherford,	,,
James Johnston Sinclair,	,,
James Brown Whitfield,	England.
John Alexander Wilson,	Scotland.

DOCTORS OF SCIENCE (D.Sc.).

November, 1908.

Edward Provan Cathcart, M.D., Ch.B. Thesis—"Some Problems in Animal Metabolism," with four relative reprints.

April, 1909.

Wilfred Eade Agar, M.A. Thesis—(1) "The Development of the Skull and Visceral Arches in Lepidosiren and Protopterus"; (2) "The Development of the Anterior Mesoderm, and Paired Fins with their Nerves, in

Lepidosiren and Protopterus"; (3) "The Spiracular Gill Cleft in Lepidosiren and Protopterus"; (4) "On the Appearance of Vascular Filaments on the Pectoral Fin of Lepidosiren Paradoxa"; (5) "Note on the early development of a Cladoceran (Holopedium gibberum)."

Robert Jack, M.A., B.Sc., Ph.D. Thesis—(1) "Zeeman-Effekt an Wolfram und Molybdän"; (2) "Dissymmetrical Separations in the Zeeman Effect in Tungsten and Molybdenum"; (3) "Heusler's Magnetic Alloy."

John Miller, M.A. Thesis—"The Geometry of the Cone and Triangle."

William Miller, M.A., B.Sc., Ph.D. Thesis—"Zeeman Effekt an Magnesium, Calcium, Strontium, Zink, Kadmium, Mangan, und Chrom.

Peter Pinkerton, M.A. Thesis—"On the relation of Geometry to Analysis."

June, 1909.

James Gordon Gray, B.Sc. Thesis—(Part I.) "On precautions in Magnetic Testing suggested by recent research"; (Part II.) "On the Magnetic Properties of various Metals and Alloys at the temperature of Liquid Air"; with Complementary Papers.

DOCTOR OF LETTERS (D.Litt.).

June, 1909.

Stanley Horsfall Turner, M.A. Thesis—"The History of Local Taxation in Scotland"; with Additional Papers.

BACHELORS OF SCIENCE (B.Sc.).

July, 1908.

In Pure Science.

Hugh Smith, M.A.

November, 1908.

In Pure Science.

Robert Boyd.
John Jackson, M.A.
Dorothy Elizabeth Lindsay.
William Oswald, M.A.
Frank Lesley Robertson.
Hugo Given Robertson.
Alexander Syme Small.
Elizabeth Findlay Stevenson, M.A.
Andrew Edgar Struthers.
Maggie Millen Jeffs Sutherland.

In Engineering.

Frank Aust.
George Barrett.[1]
George Begg.
Hans Raj Dogra.
Thomas Babington Macaulay.
William Pettigrew M'Pherson, B.Sc. (Pure).
Philip Emil Phillips.
Robert Rankin.[5]
Thomas Guthrie Russell.
Louis France Marcel Savy.[4]
Lalit Mohan Sen.
Gerald M'Kenzie Stuart Siebel.
Edward Archibald Smith.
Herbert Alexander Stewart.
Joseph Young Walls.

In Agriculture.

Alexander Main.

---

[1] With Special Distinction in (*a*) Mathematics, (*b*) Natural Philosophy, (*c*) Astronomy (*d*) Chemistry.

[2] With Special Distinction in Chemistry.

[3] With Special Distinction in Geology and Mineralogy.

[4] With Special Distinction in Physical Laboratory.

[5] With Special Distinction in Electricity, Pure and Applied.

April, 1909.

In Pure Science.

Robert Richmond Archibald, M.A.
Robert Gibson, M.A.
Margaret Barr Moir, M.A.[1]
Alexander Smith Russell, M.A.
William Alexander Sewell.

In Engineering.

Daniel Dougal Baird.
William Maxwell Balfour.
Walter Brown, M.A.[2]
James Davidson Campbell, A.G.T.C.[3]
Eric Davies.
Purna Chandra Ganguly.[4]
Theodore Gratchoff.
Allan Watt Izat.
George Jackson.[5]
Malcolm Glen Kidston.
Shigeya Kondo.
Sergius Lapotnicoff.[3]
Neil M'Caskill, A.G.T.C.
Peter Donald MacFeat.[6]
James Keppie Riddoch, A.G.T.C.[3]
Frederick Francis Schoetensack.
Robert Stewart.
Alick Lionel Tackley.[7]
John Albert Thomson, A.G.T.C.
Harry Hughes Vaughan.
James Wilson.[8]

In Public Health.

Andrew Alexander M'Whan, M.B., Ch.B.

June, 1909.

In Engineering.

Edward Vernon Anson Willett.

CERTIFICATES OF PROFICIENCY IN ENGINEERING SCIENCE.

November, 1908.

Frank Aust.
David Croll, B.Sc.
Robert Rankin.
Thomas Guthrie Russell.

April, 1909.

Daniel Dougal Baird.
George Jackson.
Peter Donald MacFeat.
James Keppie Riddoch, A.G.T.C.
Kou Yen Wei.

June, 1909.

Frederick Francis Schoetensack, B.Sc.

MASTERS OF ARTS (M.A.).

October, 1908.

William K. White.

2nd November, 1908.

John Christopher Kinnear.

---

[1] With Special Distinction in (*a*) Mathematics, (*b*) Natural Philosophy, (*c*) Astronomy.

[2] With Special Distinction in (*a*) Mathematics, (*b*) Physical Laboratory.

[3] With Special Distinction in Physical Laboratory.

[4] With Special Distinction in Electricity, Pure and Applied.

[5] With Special Distinction in (*a*) Natural Philosophy, (*b*) Physical Laboratory, (*c*) Naval Architecture and Drawing, (*d*) Engineering IV. and Laboratory.

[6] With Special Distinction in Engineering and Drawing.

[7] With Special Distinction in (*a*) Mathematics, (*b*) Natural Philosophy, (*c*) Engineering and Drawing, (*d*) Electrical Engineering I.

[8] With Special Distinction in Geology and Mineralogy.

12th November, 1908.

I. WITH HONOURS.

With First Class Honours in Classics.

Wallace MacCallum Conley.	John Robb.
David Millar.	Bryce Kerr Nairn Wyllie

With First Class Honours in English.

Euphemia Dunbar Gordon	William Johnston Merry.

Mary Campbell Waddell.

With First Class Honours in Modern Languages.

Marion Gilmour Arthur.	Mary Ethel Alison Reid.

Isabella Mackintosh Ross.

With First Class Honours in History.

Herbert Washington Saunders.	John Orr Taylor.

With Second Class Honours in Mental Philosophy, and Second Class Honours in Economic Science.

James Cunnison

With Second-Class Honours in Classics.

Thomas Campbell Gibson.	James Porter.
George Murray.	Frederick Alexander Steuart.

With Second Class Honours in Mathematics and Natural Philosophy.

Jane Anderson Clanachan.	Janet Gilmour M'Gown.
Elizabeth Pitcairn Hogg.	Alexander Sym Small.

With Second Class Honours in English.

Janetta Inglis Wyllie Mackie.	Margaret Ethel Watson.

John Young (Glasgow).

With Second Class Honours in Modern Languages.

abel Edith Alexander.	Janet Frew Kellie
Alice Green.	Elizabeth Cunningham Reid.

Justina Thomson Weir

With Second Class Honours in History.

James Young Reid.

With Third-Class Honours in Mathematics and Natural Philosophy.

Hugh Higgins.

II. ORDINARY DEGREE.

argaret Elizabeth Allan.	Robert Craig.
ary Dunlop Porteous Anderson.	Thomas Dempster Cranston.
orence Winifred Bailey.	John Alister Darroch.
atthew Urie Baird.	Elizabeth Dunnett.
argaret Boyd.	Robert Paul Fairlie.
trick Brough.	James Findlay.
therine M'Lean Brown.	William Fowler.
therine Raphael Denny Campbell.	Kate M'Millan Fraser.
orge Campbell.	John Meikle Gray.
mes Cameron Campbell.	David Hair.
therine Craig.	John Hair (Muirkirk).

Thomas Harvey.
Thomas James Hill.
Thomas Downie Hunter.
Thomas Hyslop.
John Kennedy.
Martha Neil King.
Neil Leitch.
Mary Freeland Lorimer.
John Loudon.
Elizabeth Rachel Macara.
Hugh Clarke M'Coll.
Janet Sinclair M'Culloch.
Mary Stewart M'Diarmid.
John Finlay Macdonald.
Mary Smith M'Ewan.
Murray Macgregor, B.Sc.
Robert Scott M'Intosh.
Annabella Gerrand M'Millan.
Andrew M'Vittie.
Barbara Carswell Marshall.
William Strelley Martin.
Hugh Matheson.
Janet Mary Morton.
Angus Nicolson.
John Orr.
David Paterson.
Maggie Young Paton.
Agnes Hamilton Rankin.
Thomas Reid.
John Revie.
David Young Robertson.
William Thomson Robertson.
George Mill Ross.
Samuel Ritchie Skilling.
Archibald Paterson Smith.
John Snedden.
Robert Sneddon.
William Steele
Andrew Stewart (Perth).
Henry Stewart.
James Cameron Stewart.
John M'Lean Thompson.
Elizabeth Kay Thomson.
Isabella Wishart Wood.

March, 1909.

Martin Phillips.

April, 1909.

I. WITH HONOURS.

With First-Class Honours in Classics.

Eric Dickson Macgregor.

With First-Class Honours in English.

Robert Fleming Rattray.

With Second-Class Honours in Classics.

George Taylor.

II. ORDINARY DEGREE.

James Carmichael.
Henry Grindlay Clark.
Thomas Gilchrist.
Alexander Macgregor.
Duncan Alexander M'Vean.
Archibald Underwood Millar.
Peter Alexander Cardale Milne.
Thomas Macready Napier.
Richard Blake Niven.
John Murray Whyte.
John Wright.

June, 1909.

I. WITH HONOURS.

With First-Class Honours in Classics.

Helen Brown Scott Lennox.
Hugh Forgan Martin.

With First-Class Honours in Mental Philosophy.

Hugh Adam Reyburn.

With First Class Honours in English.

John Ronald Peddie.
William Duncan Taylor.

With First Class Honours in Modern Languages.

Margaret Elizabeth Martin.
Agnes Morton.
Alice Marion Nelson.
Nettie Hunter Stein.

With Second Class Honours in Classics.

Bernard Ireland Macalpine.
James Stothers.

With Second Class Honours in Mental Philosophy.

William Boyd Henderson.

With Second Class Honours in English.

Muriel Nelson.
Ada Margaret Winning Renwick

II. ORDINARY DEGREE.

vangeline Wilson Adam
ohn Agnew (Minnigaff).
lary Graham Allan.
liza Smith Arthur.
ames Baillie.
Villiam Arthur Baird.
ary Nicoll Gunn Battersby.
anet Hailstones Baxter
oland Firth Blythe.
uncan M'Allister Bowie
lias Edith Brander.
argaret Henderson Brechin.
benezer Broadhead.
mes Christian Brown.
obert Brown (Greenock).
avid Buchanan.
exander Douglas Cameron.
bert Munro Cameron
uncan Campbell.
ry Fotheringham Campbell.
nnie Stewart Campbell.
ry Cochrane.
herine Boyd Conley.
Jnes Charles Conn.
J nes Love Coulter.
hia MacFarlane Cowan.
garet Bowie Cox.
n Currie.
y Stevenson Dale.
y Lindsay Lumsden Dawson.
y Ann Dewar.
J ma Dickie.
J Donaldson.
H rietta Henry Duff.
J es Orr Erskine.
ge Williams Ewart.
H n Elizabeth Fair
W iam Stavert Ferrie.
Daniel Alexander Forrest.
George Forrester.
Archibald Gardner.
Elizabeth Dickie Gibb.
Henry James Craig Gibson
Annie Marjorie Glegg.
Sylvia Sorrel Gunn.
Mary Halbert.
Jeanie Hamilton.
Wilfred Leveson Henderson.
John Hendry
Mary Harper Herriot.
Martha Law Howie.
Henry Hunt.
Janet Simpson Hunter.
John Ferguson Hutton.
Andrew Inglis.
Albert Graham Keane.
Annie Stevenson Kelly.
Annie Kerr.
William Kerr.
Sarah Margaret Kirkwood.
Mary Reid Knight.
Isabella May Lennox.
Christina Newlands Low
Matthew White Macaulay
Charles Whitecross M'Bain.
James Allingham M'Cardel.
Agnes M'Connell.
Duncan M'Corkindale.
Jeanie M'Creadie.
Angus Macdonald (Greenock).
Donald Macdonald (Stornoway).
John M'Dougall (Glasgow).
John Craig M'Fadyen.
Malcolm James M'Intyre
Charles Mackay.
Christina Mackay.

Eric Wilfred Mackay.
Nancy Fairrie Mackay.
Benjamin M'Kenna.
Philip Stevenson Mackie.
Hugh Howe Mackinnon.
Esther Scrimgeour Maclachlan.
John Victor M'Lean.
Elizabeth Leitch Maclullich.
James M'Intosh M'Phail.
Jessie Lilian Brown Macphail.
Jeanie Maxwell.
Peter Carmichael Millar.
Agnes Cumming Miller.
George Alexander Mills.
George Dunlop Montgomerie.
Christina Reid Wylie Morison.
Eliza Jane Murray.
William Murray.
Thomas Nichol.
Catherine Macdonald Nicolson.
Stuart Crawford Parker.
William Donald Patrick.
Andrew Peebles.
Alexander Mowatt Reid.
Janet Gillespie Reid.
Charles Macintyre Rice.
Margaret Paterson Robb.
Agnes Miller Robertson.
Elizabeth Bickerton Robertson.
Elizabeth Mary Hope Robertson.
Jane Gemmell Russell.
Richard Bolitho Ryall.
Adam Scott.
John Bartlemore Short.
John M'Gibbon Short.
Eleanor Smith.
Margaret Drew Smith.
Marion Bryan Logan Smith.
Arthur Steven.
Robert Stewart (Darvel).
William Galbraith Taylor.
Christina Thomson.
Grace Thomson.
John M'Callum Urquhart.
David Crawford Watson.
William Black Weir.
Matthew White.
Louisa Gladstone Carlyle Whyte.
Robert Wilson,
Ethel Robertson Wise.

DIPLOMA IN EDUCATION.

November, 1908.

Diploma with Distinction in Science.
Donald Macphie, M.A., B.Sc.

Diploma with Distinction in English, including History.
Janetta Inglis Wyllie Mackie, M.A. Charles Maclean, M.A.

Diploma with Distinction in French and German.
Francis Alexander Bald, M.A.

June, 1909.

Diploma with Distinction in (a) Mathematics, (b) Science.
Margaret Barr Moir, M.A., B.Sc.

Diploma with Distinction in English, including History.
Mary Campbell Waddell, M.A.

Diploma with Distinction in French and German.
Janet Frew Kellie, M.A.

DISTINCTIONS GAINED

IN THE PROFESSIONAL EXAMINATIONS FOR M.B., CH.B.

The following passed with distinction in the subjects indicated:

FIRST EXAMINATION.

October, 1903.

In Physics—Robert M. Morison, M.A.

October, 1908.

In Zoology, Physics, and Chemistry—Graham Stevenson; in Botany and Physics—David Smith; in Botany—Norman Veitch Lothian, Thomas Martin, John Boyd Orr, M.A.; in Zoology—William Cameron Davidson, John Ritchie Richmond Ritchie: in Physics—Henry Stanley Banks, Samuel

Blumenfeld, William Muir Howells, Charles Aloysius M'Gune, Guy Dalzell M'Lean, Ronald Stewart, George Milroy Whish, Neil Young Wilson; in Chemistry—Andrew Shennan Neilson, Angus Macpherson Walker.

April, 1909.

In Zoology and Chemistry—John Smith Knox Boyd, Frank Morton Robertson, David Smith; in Botany—William Montgomery; in Zoology—Benjamin Cohen, Wallace MacCallum Conley, M.A., Nathaniel Crichlow, William John Henry, Sarah Anderson Jamieson Rankine; in Chemistry—Henry Stanley Banks.

SECOND EXAMINATION.

October, 1908.

In Physiology—Robert Richmond Archibald, M.A., James David Speid Sinclair; in Materia Medica and Therapeutics—Thomas Jones Mackie, James Lachlan Ure.

April, 1909.

In Anatomy and Physiology—Charles Cameron, M.A., William MacMurray, Stuart Spence Meighan; in Anatomy and Materia Medica and Therapeutics—James Eric Paterson; in Physiology and Materia Medica and Therapeutics—David Thomas Crichton Frew; in Physiology—James Wallace Anderson, James Turner Brown, Leander Lowrie Fyfe, Andrew Smith Hannay, Farquhar Matheson, Ellen Brown Orr; in Materia Medica and Therapeutics—Thomas Stewart Barrie, Hugh Paterson.

THIRD EXAMINATION.

October, 1908.

In Pathology—Robert Wilson Sutherland; in Medical Jurisprudence and Public Health—William M'Adam, M.A., B.Sc., John William M'Nee, Hyacinth Bernard Wenceslaus Morgan.

April, 1909.

In Pathology—Thomas Simpson Campbell, Andrew Scobie Findlay, Malcolm Angus MacDonald, Thomas Jones Mackie, James M'Alpine Scott, M.A., James Lachlan Ure, Harold Edward Whittingham; in Medical Jurisprudence and Public Health—James Thomson Dick, James Dunlop, M.A., William Macewen.

FOURTH EXAMINATION.

July, 1908.

In (*a*) Surgery and Clinical Surgery, (*b*) Practice of Medicine and Clinical Medicine, (*c*) Midwifery—Archibald Campbell Munro, Adam Patrick, M.A.; in (*a*) Surgery and Clinical Surgery, (*b*) Practice of Medicine and Clinical Medicine—John Lindsay Boyd, John Cruickshank, John MacMillan, Peter Russell M'Naught, Ralph Montgomery Fullarton Picken, B.Sc., Neil Campbell Scott; in (*a*) Surgery and Clinical Surgery, (*b*) Midwifery—John Fotheringham, B.Sc.; in Surgery and Clinical Surgery—Alexander Mills Kennedy, Frank Crombie Macaulay, John Henry M'Kay, William M'Kendrick, William Campbell Mackie, James Walter M'Leod, James M'Millan M'Millan, William Matheson, Kenneth Chisholm Middlemiss, Allan Frederick Miller, Watson Noble, Albert Rutherford Paterson, Alfred Cecil Sharp, William Stevenson, Hugh Cochrane Storrie, Robert Macnair Walker, Thomas Charles Dalrymple Watt, Hugh Mundle Wilson; in Practice of Medicine and Clinical Medicine—William Barrie Brownlie, Walter Gilmour; in Midwifery—James Carrick, James Cook (Partick), Arthur Drummond Downes, M.A., William Miller Fairlie.

December, 1908.

In (*a*) Surgery and Clinical Surgery and (*b*) Midwifery—Hugo Given Robertson, B.Sc.; in Surgery and Clinical Surgery—William Leonard Forsyth, James Hall Hislop, Allan Semple, Jeanie Hinshaw Stewart; in Practice of Medicine and Clinical Medicine—Robert Dunlop Black Frew.

April, 1909.

In (*a*) Surgery and Clinical Surgery, (*b*) Practice of Medicine and Clinical Medicine, (*c*) Midwifery—George Macleod, M.A.; in (*a*) Surgery and Clinical Surgery, (*b*) Midwifery—William Howat, M.A., William Rutherford, Alexander Stewart; in Surgery and Clinical Surgery—Winifred Margaret Ross, James Johnston Sinclair. Arthur Turnbull, M.A., B.Sc.; in Midwifery—Matthew Ignatius Thornton Cassidy, John Parlane Kinloch, Robert Charles Robertson, William Wilson Rorke.

BURSARY COMPETITION.

September, 1908.

The figure (2) denotes students of the second year.

The following are the first fifty-two names in the order of merit, viz.:

1. Eleanor J. M. Donaldson, Girls' High School, Garnethill, Glasgow.
2. John A. Black, High School, Glasgow.
3. Alexander B. Muir, Higher Grade School, Buckie.
4. John M. Garlick, Tillicoultry Public School and Dollar Institution.
5. David G. Ramsay, Whitehill Higher Grade School, Glasgow.
6. James White, Hamilton Academy.
7. Archibald N. M'Alpine (2), St. Aloysius' College, Glasgow.
8. George M. D. Short, Spier's School, Beith.
9. Hercules D. Soutter, Greenock Academy.
10. Joseph W. P. Harkness (2), Airdrie Academy and Glasgow Academy.
11. David Campbell (2), Ayr Academy.
12. Thomas B. Noble, Dumfries Academy.
13. Andrew M'Cracken, Ayr Academy.
14. John Hamilton, Hutchesons' Grammar School, Glasgow.
15. Rollo R. G. Sutherland (2), Spier's School, Beith.
16. David Bell (2), West Coats Higher Grade School, Cambuslang.
17. George W. Blair, Hutchesons' Grammar School, Glasgow.
18. Graham B. Jardine, Glasgow Academy.
19. David I. Byers, N. Kelvinside Higher Grade School, Glasgow.
20. Robert P. Arnot, Greenock Academy.
21. Edward M. Melville, Stromness Higher Grade School, Orkney.
22. Neil Y. Wilson (2), Whitehill Higher Grade School, Glasgow,
23. Robert F. Paterson, Airdrie Academy.
24. Beatrice H. M'Ainsh, Public School, Polmont.
25. John Phemister, Fairfield Higher Grade School, Govan.
26. Gavin Lawson, Grammar School, Uddingston.
27. James C. Hamilton, High School, Glasgow.
28. John E. Arkieson (2), Airdrie Academy.
29. Donald M'Leod, N. Kelvinside Higher Grade School, Glasgow.
30. Alexander Banks, Royal Academy, Irvine.
31. Mary S. Sinclair (2), Girls' High School, Garnethill, Glasgow.
32. David P. Hutton, Dalziel High School, Motherwell.
33. Charles G. Macdowall, Hutchesons' Grammar School, Glasgow.
34. William A. Laird, Hamilton Crescent Higher Grade School, Partick.

35. Donald Ross, Glen Urquhart School, Drumnadrochit, and Strichen School.
36. John Walker, Whitehill Higher Grade School, Glasgow.
37. Thomas B. Waddell (2), Royal Academy, Irvine.
38. James Gibson (2), Whitehill Higher Grade School, Glasgow.
39. Mary C. M'Coll, Kilmallie Higher Grade School, Fort William.
40. William Peebles, Spier's School, Beith.
41. Peter Campbell, Hermitage Higher Grade School, Helensburgh.
42. John Newton, Whitehill Higher Grade School, Glasgow.
43. Alexander Love, Ardrossan Academy.
44. Alexander Ferguson, N. Kelvinside Higher Grade School, Glasgow.
45. David Ferguson, Grammar School, Paisley.
46. Percival M. Buchanan, Hutchesons' Grammar School, Glasgow.
47. George Gilfillan, Vale of Leven Academy, Alexandria.
48. James C. Boyd (2), Kilmarnock Academy.
49. Andrew C. Philps, Hutchesons' Grammar School, Glasgow.
50. Peter D. MacLean, Higher Grade School, Girvan.
51. Wilfrid L. Jones, High School, Dundee.
52. Robert A. Walker, Kilmarnock Academy.

UNIVERSITY PRIZES

I.—FOR ESSAYS

The UNIVERSITY SILVER MEDAL, for an Essay on "Monadism with special reference to recent tendencies in Philosophy."

George D. Henderson.

The EWING GOLD MEDAL, for an Essay on "The Relations of Scotland and France during the Hundred Years' War."

Charles S. Black.

The DOBBIE-SMITH GOLD MEDAL, for an Essay on a Botanical Subject.

Robert C. Davie, M.A.

A COULTER PRIZE of £5, for an Essay on "The Influence of Pantheism on Modern Theological Thought."

Andrew Templeton, M.A.

A COULTER PRIZE of £5, for an Essay on "Aegina before the Persian Wars."

Robert F. Clark.

The HENDERSON PRIZE of £21, for an Essay on "Pragmatism."

Leonard J. Russell, M.A., B.Sc.

II.—FOR EXAMINATIONS

An ARNOTT PRIZE of £25, for Examination in Physiological Physics.

John Gibson, M.A.

An ARNOTT PRIZE of £15, for Examination in General Physics.

Henry S. Banks.

The FINDLATER SCHOLARSHIP of £38, for Examination in subjects of B.D.

David W. M'Lean, M.A.

The JAMIESON PRIZE of £10, for Examination in subjects of B.D.

William K. White, M.A.

The LUKE HISTORICAL PRIZE of £9, for Examination in Ancient Greek and Roman History.

Robert T. Clark.

The GLADSTONE MEMORIAL PRIZE of £5 in books, to a graduate with Honours in Economic Science.

William Kennedy, M.A.

The THOMAS LOGAN MEMORIAL MEDAL AND PRIZE, to the graduate in Arts of the year 1908 with the highest marks in the Degree examinations.

Bryce Keir Nairn Wyllie, M.A., with First-Class Honours in Classics.

The BRUNTON MEMORIAL PRIZE of £10, to the most distinguished graduate in Medicine of the year 1908.

John Cruickshank, M.B., Ch.B.

III.—FOR THESES.

BELLAHOUSTON GOLD MEDALS, for Eminent Merit in Theses for M.D. (alphabetically arranged).

Alexander S. M. Macgregor, M.D.
Thomas Orr, B.Sc., M.D.

CLASS PRIZES.

Faculty of Theology.

DIVINITY.

Professor H. M. B. Reid, D.D.

SENIOR CLASS.

I. Students of the Third Year:—

1. Matthew Stewart, M.A., Glasgow (Cleland and Rae-Wilson Gold Medal, Dickson Prize of £2 18s. 6d. in books, and Caird Prize of £5 5s. in books).
2. John Middleton, LL.B., Glasgow.
3. William Whitehead, M.A., Port-Glasgow.
4. Andrew Templeton, M.A., Glasgow.
5. Richard C. Corrie, M.A., Doncaster.

Honourable Mention—Alexander MacLean, M.A., Kilmelfort; David W. M'Lean, M.A., Linlithgow; William M. Milne, M.A., Helensburgh.

Dowanhill Prizes for Elocution:—

1. (£20) Alexander MacLean, M.A., Kilmelfort.
2. (£10) John A. Steele, M.A., Glasgow.

II. Students of the Second Year:—

1. { Charles E. Duff, M.A., Oban, / Thomas Smith, M.A., Cambuslang, } Equal.
   (Caird Prize of £5 5s. in books divided.)
2. William Barclay, M.A., Glasgow.
3. Robert J. Thomson, M.A., Glasgow.
4. Berry Preston, M.A., Glasgow.

Honourable Mention—Alexander B. Harper, M.A., Wishaw; John MacLean, M.A., Wishaw.

JUNIOR CLASS.

III. Students of the First Year:—
1. Frederick A. Steuart, M.A., London (Caird Prize of £5 5s. in books).
2. Dugald M'Arthur, M.A., Renton.
3. William M'Nicol, M.A., Alexandria, N.B.
4. James Rossie Brown, M.A., Glasgow.
5. Andrew Currie, M.A., Kilmarnock.

Honourable Mention—George D. Nisbet, M.A., Dalbeattie; Thomas M'Vittie, M.A., Cumnock.

DIVINITY AND BIBLICAL CRITICISM

Professor William Stewart, D.D.

SENIOR DIVISION.

1. William K. White, M.A., Ayr (Cleland and Rae Wilson Gold Medal).
2. Matthew Stewart, M.A., Glasgow.
3. John A. Steele, M.A., Glasgow.
4. Robert R. Lindsay, M.A., Glasgow.

Next in order—Alexander Silver, M.A., Gargunnock; Andrew Templeton, M.A., Glasgow; David W. M'Lean, M.A., Linlithgow.

JUNIOR DIVISION.

1. Thomas Smith, M.A., Cambuslang.
2. Robert J. Thomson, M.A., Glasgow.
3. William Barclay, M.A., Glasgow.

Next in order—John MacLean, M.A., Wishaw; Charles E. Duff, M.A., Oban; Berry Preston, M.A., Glasgow.

HEBREW AND SEMITIC LANGUAGES

Professor William B. Stevenson, B.D., D.Litt.

I. Senior Hebrew Class.

Prizes.

1. Alexander S. Fulton, Beith (Cleland and Rae Wilson Gold Medal).
2. Charles E. Duff, M.A., Oban.
3. Robert J. Thomson, M.A., Glasgow.
4. John MacLean, M.A., Wishaw.

Certificates of Merit.

5. Thomas Smith, M.A., Cambuslang.
6. Alexander B. Harper, M.A., Wishaw.
7. { William Barclay, M.A., Glasgow,
Charles W. Farish, M.A., Glasgow,
Alexander Macdonald, M.A., Lochmaddy,
Alexander Moir, Motherwell, } Equal.
11. Neil D. Mackinnon, M.A., Tiree.

Essay Prize.

Thomas Smith, M.A., Cambuslang.

Recitation Prize.

Charles E. Duff, M.A., Oban.

II. Junior Hebrew Class.

Prizes.

1. Frederick A. Steuart, M.A., London.
2. Robert Stevenson, Dunfermline.
3. William M'Nicol, M.A., Alexandria, N.B., } Equal.
   John M. Gray, M.A., Glasgow,

Certificates of Merit.

5. Thomas M'Vittie, M.A., Cumnock, } Equal.
   Dugald M'Arthur, M.A., Renton,
7. John E. Davidson, M.A., Greenhill.
8. Douglas D. Robertson, M.A., Glasgow.

Recitation Prize.

Frederick A. Steuart, M.A., London.

III. Vacation Essay Prize.

James MacMorland, M.A., Straiton, Ayrshire.

IV. Syriac Class.

James MacMorland, M.A., Straiton, Ayrshire.

ARABIC.

Lecturer—Thomas H. Weir, B.D.

Honours Class.

Glasgow University Oriental Society's Prize.

Alexander S. Fulton, } Equal.
Louis C. Phillips, M.A.,

Ordinary Class.

Summer Session, 1908.

Glasgow University Oriental Society's Prize.

Alexander S. Fulton, } Equal.
Louis C. Phillips, M.A.,

CHURCH HISTORY.

Professor James Cooper, D.D.

I. Senior Class.

Prizes.

1. Matthew Stewart, M.A., Glasgow (Cleland and Rae-Wilson Gold Medal).
2. Andrew Templeton, M.A., Glasgow.
3. David W. M'Lean, M.A., Linlithgow.
4. Alexander Mauchline, M.A., Larkhall.
5. Robert R. Lindsay, M.A., Glasgow.

Certificates of Merit.

Richard C. Corrie, M.A., Doncaster.
William J. Smith, M.A., Glasgow.
John A. Steele, M.A., Glasgow.
James R. Lee, M.A., Glasgow
Alexander Silver, M.A., Gargunnock.
Robert E. Lee, M.A., Glasgow.
Alexander MacLean, M.A., Kilmelfort.
Francis Davidson, M.A., Paisley.

II. JUNIOR CLASS.

Prizes.

1. Frederick A. Stewart, M.A., London.
2. William M'Millan, Sanquhar.
3. James Rossie Brown, M.A., Glasgow.
4. William M'Nicol, M.A., Alexandria, N.B.
5. Douglas D. Robertson, M.A., Glasgow.

Certificates of Merit.

Robert P. Fairlie, M.A., Paisley.
Donald M. Logan, M.A., Skye.
Dugald M'Arthur, M.A., Renton.
Andrew Currie, M.A., Kilmarnock.
John E. Davidson, M.A., Greenhill.

Faculty of Law.

SCOTS LAW.

PROFESSOR WILLIAM M. GLOAG, K.C., B.A., Advocate.

I. For Eminence in Class Examinations.

Prizemen.

1. William Clark (Robert Ross Prize).
2. Hugh B. Spens, B.A.
3. James D. Paterson, M.A.
4. Harold M'Intosh, M.A.
5. John S. Boyd, M.A., } Equal.
5. Charles E. P. White, M.A., } Equal.

Honours (in alphabetical order).

Alexander Kay, M.A.
John M'Intyre.
James Mather, M.A.
Peter A. C. Milne.
Thomas Paterson.
William W. Paterson.
John L. Stevens.
James K. Walker, M.A.
William Walker.

II. For Eminence in Examination for Prizes given by the Faculty of Procurators in Glasgow.

Prizemen.

1. Harold M'Intosh, M.A.
2. Hugh B. Spens, B.A.
3. Arthur S. Hedderwick, B.A.
4. Charles E. P. White, M.A.

Honours (in alphabetical order).

John S. Boyd, M.A.
William Clark.
Alexander Kay, M.A.
James K. Walker, M.A.

CONVEYANCING.

PROFESSOR JAMES MOIR, LL.D.

Prizemen.

1. John Henderson (Robert Ross Prize).
2. George Stevenson.
3. John W. Taylor, M.A.
4. David J. Wallace, M.A.

Eminently Distinguished.

5. John K. Bell.
6. William Kyle.
7. Samuel A. Cunningham.
8. Alexander Russell.
9. George T. Walker.
10. James D. Bannatyne.
    William Nicol.

Examination for Prizes given by the Faculty of Procurators in Glasgow.

Prizemen.

1. John Henderson.
2. David J. Wallace, M.A.
3. George Stevenson.

Eminently Distinguished.

4. William Nicol.
5. John K. Bell.
6. William Kyle.
7. John W. Taylor, M.A.

CIVIL (OR ROMAN) LAW.

Lecturer—Hugh R. Buchanan, LL.B.

*1. Andrew R. Duncan, M.A.
*2. Robert Gibson, M.A.
    Roger G. M'Dowell.
*4. John O. Taylor, M.A.
5. John M. White.
6. John Stewart.

* The asterisk denotes the prizemen.

PUBLIC INTERNATIONAL LAW.

Lecturer—A. H. Charteris, LL.B.

First Class Certificates.

1. John S. Boyd, M.A., } Prizemen (Equal).
   John W. Taylor, M.A., }
2. Thomas D. M. Latta, M.A.
3. Harold M'Intosh, M.A.

INTERNATIONAL PRIVATE LAW.

Lecturer—A. H. Charteris, LL.B.

Summer Session, 1908.

First-Class Certificates.

1. John W. Taylor, M.A. (First Prize).
2. John S. Boyd, M.A. (Second Prize).
3. Francis W. J. Reid, } Equal.
   Matthew Wyllie, M.A., }

JURISPRUDENCE.

Lecturer—James A. M'Callum, LL.B.

1. John S. Boyd, M.A., } Equal (Prizemen).
   Hugh B. Spens, B.A., }
3. Arthur S. Hedderwick, B.A.
4. Robert W. Roxburgh, M.A.

CONSTITUTIONAL LAW AND HISTORY

Lecturer—William S. McKechnie, LL.B., D.Phil.

Ordinary Class.

1. Alexander Dingwall (First Prize).
2. Roger G. M'Dowall (Second Prize).
3. William D. Patrick (Third Prize).
4. Angus Macdonald (Fourth Prize).

5. { John R. B. Graham, } Equal.
   { John Hendry, }
7. Constance A. Falconer.

MERCANTILE LAW.

Lecturer—Thomas G. Wright, LL.B.

Prizes.

1. Andrew M. Mathieson.
2. William Kennedy, M.A.
3. George B. Service.
4. Andrew Stewart, M.A.

Certificates of Merit (in alphabetical order).

George M. Barr.
Thomas Caldwell.
James T. Cook.
John Gibb.
William Glendinning.
Robert J. Harris.
Frederick Pomphrey.
Laurence W. Tromb[illegible].
John G. Wylie.

FORENSIC MEDICINE.

Professor John Glaister, M.D., D.P.H.(Camb.), F.R.S.E.

First Class Certificates (in order of merit).

James K. Walker, M.A.—Medallist.
Charles E. P. White, M.A.
James D. Paterson, M.A.
James Mather, M.A.
James Adair, }
Robert G. Alexander, M.A., } Equal.
James Cunnison, M.A., }
John M. Whyte, }

Faculty of Medicine.

MEDALS AND CERTIFICATES OF MERIT.

SURGERY.

Professor Sir William Macewen, M.D., LL.D., D.Sc.(Oxon.), F.R.S.

Medals and First-Class Certificates.

1. { Charles Duguid, M.A., } Equal.
   { Thomas J. Mackie, }
   { David C. Suttie, }
   { Harold E. Whittingham, }

First Class Certificates.

2. John W. M'Nee.
3. Robert Gale.
4. Andrew S. Findlay.
5. Malcolm A. MacDonald.
6. { Albert W. Gregerson, } Equal.
   { William Macewen, }
7. James M. Scott, M.A.

Commendation Certificates.

1. John M. Scott, M.A.
2. John H. M'Nicol.
3. Robert R. Archibald, M.A.,
   Balfour M'Kean,
   Andrew R. Muir, Equal.
4. Hyacinth B. W. Morgan,
   Arthur F. Stewart,
   Charles L. Sutherland, Equal.
5. Robert H. Deans,
   Daniel W. Ritchie,
   William A. Sewell,
   John Stewart, Equal.
6. James L. Cochrane,
   George Fletcher, M.A., Equal.
7. Alexander Leishman,
   Gilbert I. Strachan, Equal.
8. Ian Macdonald,
   Robert Sweet, Equal.
9. Charles Auld,
   James W. Jones, Equal.

CLINICAL SURGERY.

PROFESSOR SIR WILLIAM MACEWEN, M.D., LL.D., D.Sc.(Oxon.), F.R.S.

Summer Session, 1908.

SENIOR DIVISION.

First-Class Certificates (in alphabetical order).

Walter Gilmour.
Josiah S. Harbinson.
Benjamin Hutchison.
William C. Mackie.
Adam Patrick, M.A.
John M. Walker.

Commendation Certificates (in alphabetical order).

Thomas Archibald.
Alexander Ballantyne, M.A.
Hugh C. Storrie.
Robert M. Walker.
Thomas C. D. Watt.

JUNIOR DIVISION.

First-Class Certificates.

1. John W. M'Nee.
2. Robert M. Morison, M.A.
3. Arthur Turnbull, M.A., B.Sc.
4. Hugh G. Robinson.
5. William E. Gemmell.
6. Daniel W. Ritchie.

Commendation Certificates.

1. John M. Scott, M.A.
2. Campbell L. Millar, M.A.
3. John Y. Wood.
4. Andrew R. Muir,
   Harold E. Whittingham, Equal.
5. James C. Auchencloss,
   John A. Wilson, Equal.

Clinical Registrar—Arthur Turnbull, M.A., B.Sc.

Winter Session, 1908-9.

JUNIOR DIVISION.

First Class Certificates.

1. Balfour M'Kean (Medal)
2. James Buchanan } Equal.
2. Campbell L. Miller, M.A. } Equal.
3. William Anderson
4. George J. Wilson.
5. Donald M'Intyre
6. Stephen A. MacPhee
7. James M. Scott, M.A

Commendation Certificates.

1. James Williamson
2. Daniel W. Ritchie.
3. Pietro Giuliani
4. Andrew S. Findlay.
5. Allan B. Hamilton.
6. Charles S. Black.
7. Ian Macdonald

SENIOR DIVISION.

First Class Certificates.

1. John A. G. Burton (Medal).
2. Alfred Roemmele.
3. James S. Somerville.
4. James Dunlop, M.A
5. William C. Macartney
6. Thomas J. Mackie
7. Robert C. Robertson
8. David Purdie
9. David F. Smith
10. Robert Gale

Commendation Certificates.

1. John Robertson
2. John Young
3. Arthur F. Stewart
4. Carl J. B. Bachhuis.
5. Charles H. Wagner
6. David Balfour.

Indoor Dressers.

James A. S. Burges.
Nicolas Gebbie.
James H. Hislop (3 months).
Archibald C. Haddow.
Alexander M. Macdonald
Malcolm A. MacDonald.
William J. Moore
John M. Scott, M.A
William A. Sewell (3 months)
Hugh White.
Harold E. Whittingham

Anaesthetists.

John Young.
William L. Forsyth.
Robert W. Sutherland.
Henry J. Windsor.
Aidan G. W. Thomson
James A. S. Burges.
Arthur M. Bayne.
William S. Alexander, M.A.
David Purdie.
Daniel W. Ritchie.
James Dunlop, M.A
Nicolas Gebbie.

CLINICAL SURGERY.

PROFESSOR SIR HECTOR C. CAMERON, M.D

Summer Session, 1908

Medals.

Walter H. Kiep. }
Thomas J. Mackie }

Certificates of Merit (in alphabetical order).

James Buchanan
Andrew H. Clark.
Charles Duguid, M.A
William Macewen.
Malcolm Manson, M.A
James E. Paterson.

Winter Session, 1908-9.

First-Class Certificates of Merit.

Norman M'Farlane.
Malcolm Manson, M.A.
John F. Smith, M.A.

PRACTICE OF MEDICINE.

PROFESSOR SAMSON GEMMELL, M.D.

Gairdner Medal—David C. Suttie.

First-Class Certificates (in order of merit).

Hyacinth B. W. Morgan.
William M'Adam, M.A., B.Sc.
Robert D. Goldie.
Duncan M. Taylor.
Kenneth C. G. Gray.
John H. M'Nicol.
John W. M'Nee.
Andrew H. Clark.
George Macleod, M.A.
Donald J. Clark.
William Niccol.
Robert B. F. M'Kail.
William Howat, M.A.
Charles M. Nicol.
Alexander G. Gilchrist.

CLINICAL MEDICINE.

Interim Lecturers—WILLIAM MACLENNAN, M.B.; WILLIAM R. JACK, B.Sc., M.D.; and JOHN S. M'KENDRICK, M.D.

Summer Session, 1908.

SENIORS.

First-Class Certificates (in order of merit).

William A. Muir.
Walter Telfer.
James B. Sim.
John Blakely.

JUNIORS.

First-Class Certificates (in order of merit).

James T. Dick.
Andrew B. MacLean.

CLINICAL MEDICINE.

PROFESSOR SAMSON GEMMELL, M.D.

Summer Session, 1908.

SENIORS.

First-Class Certificates (in alphabetical order).

John Cameron.
John Fotheringham, B.Sc.
Robert Gale.
George S. Gordon.
William Howat, M.A.
William M'Adam, M.A., B.Sc.
Robert M'Carlie.
John H. M'Nicol.
Ralph M. F. Picken, B.Sc.
William Rutherford.
James S. Somerville.
Robert W. Sutherland.

JUNIORS.

First-Class Certificate.

David R. Adams.

Winter Session, 1908-9.

Medal—Arthur Turnbull, M.A., B.Sc.

First Class Certificates (in order of merit).

William H. S. Armstrong,
John W. M'Nee,
Robert D. Goldie,
Equal

Douglas M. Borland

David Y. Buchanan,
Morris W. Browdy,
Equal

William W. Rorke,
Donald M'Dougall,
Robert B. J. M'Kail,
Equal

MIDWIFERY.

Professor Murdoch Cameron, M.D.

Medallist—George McLeod, M.A.

First Class Certificates (alphabetically arranged).

James Cairns.
James L. Cochrane.
Charles Duguid, M.A.
William M'Adam, M.A., B.Sc.
John W. M'Nee.
John H. M'Neil.
James S. Somerville.
Alexander Stewart.
David C. Suttie.

Second Class Certificates (alphabetically arranged).

Robert D. Goldie.
Albert W. Gregorson.
Hyacinth B. W. Morgan.
James J. Sinclair.
Stephen A. Telfer.
Alfred G. W. Thomson.
Harold F. Whittingham.
Henry J. Windsor.

DISEASES OF WOMEN.

Professor Murdoch Cameron, M.D.

Summer Session, 1908.

Medal—James Cook (Partick).

First-Class Certificates (alphabetically arranged).

David Anderson.
Morris W. Browdy.
James Cairns.
James Cook (Partick).
George S. Gordon.
Josiah S. Harbison.
James Harper, M.A.
John Robertson.
David Taylor.
John M. Walker.

Second Class Certificates (alphabetically arranged).

James K. Dunlop, M.A.
Donald Fisher.
Alexander T. A. Gourlay.
Benjamin Hutchison.
Frank C. Macaulay.
Thomas Mackinlay.
Murdo M. MacRae.
Frank N. Marsh.
William Rutherford.
Robert M. Walker.

INSANITY.

Lecturer—Landel R. Oswald, M.B.

Summer Session, 1908.

Mackintosh Bursary—Arthur Turnbull, M.A., B.Sc.

First Class Certificates (in alphabetical order).

James Hendry, M.A.
Mary C. Mitchell.
William O. Taylor.
Arthur Turnbull, M.A., B.Sc.
Henry Yellowlees.

Second-Class Certificates (in alphabetical order).

James Dunlop, M.A.
Euphemia A. Hay.
James W. Jones.
John P. Kinloch.
Balfour M'Kean.
Florence E. Sexton.
Ethelwyn M. Walters.

DISEASES OF THE EAR.

Lecturer—Thomas Barr, M.D.

Summer Session, 1908.

Prizes.

Robert Gale.
Henry J. Windsor.

First-Class Certificates.

Thomas S. Campbell.
James T. Dick.
John Granger.
William C. Macartney.

Winter Session, 1908-9.

Prizes.

William G. Clark.
John W. M'Nee.

First-Class Certificates.

Balfour M'Kean.
Stephen V. Telfer.

Second-Class Certificates.

Robert H. Deans.
William M'Adam, M.A., B.Sc.

DISEASES OF THE THROAT AND NOSE.

Lecturer—James Walker Downie, M.B.

Summer Session, 1908.

First-Class Certificates (in order of merit).

John A. M. Cameron.
John Allan.
Campbell Macmillan, } Equal
Richmond Steel, }
Morris W. Browdy, }
Hyacinth B. W. Morgan, } Equal.
Aidan G. W. Thomson, }

Second-Class Certificates (in order of merit).

David Barbour, }
James Buchanan, } Equal.
William Howat, M.A., }
Bently M. Hunter, }
William M'Connell, } Equal.
Duncan M. Taylor, }
James K. Dunlop, M.A., } Equal.
Arthur F. Stewart, }
William C. Macartney.

Winter Session, 1908—9.

First-Class Certificates (in order of merit).

Stephen V. Telfer.
Andrew H. Clark.
John A. G. Burton, } Equal.
Balfour M'Kean, }
Ian Macdonald.

Second-Class Certificates (in order of merit).

Kenneth C. G. Gray.
Allan B. Hamilton.
James L. Cochrane.

PATHOLOGY.

Professor Robert Muir, M.A., M.D.

First Class Certificates.

1. Thomas J. Mackie, Medallist.
2. Harold E. Whittingham.
3. Malcolm A. MacDonald, James M. Scott, M.A., Equal.
5. Gilbert L. Strachan.
6. John R. Haldane.
7. Daniel W. Paterson, James L. Ure, Equal.
9. Charles Auld.
10. Andrew S. Findlay, John Stewart, Equal.

Second Class Certificates.

12. James Dunlop, M.A., John M. Scott, M.A., Equal.
14. Nicolas Gebbie.
15. Robert Drummond.
16. John Broadfoot, Stephen A. Telfer, Equal.
18. James A. S. Begg, James T. Dick, Equal.
20. James Buchanan, William Hamilton, Equal.
22. Thomas S. Campbell, Andrew B. Maclean, Agnes M. M'Michael, Equal.

PRACTICAL PATHOLOGY.

Professor Robert Muir, M.A., M.D.

Summer Session, 1908.

Medallist—Harold E. Whittingham.

First Class Certificates (in order of merit).

1. Harold E. Whittingham.
2. Thomas J. Mackie.
3. James Dunlop, M.A., James L. Ure, Equal.
5. Robert R. Archibald, M.A.
6. Donald C. Macdonald.
7. James B. Galbraith, Agnes M'Michael, Marion A. Wylie, M.A., Equal.
10. Nicolas Gebbie.

First Class Certificate (absent from one examination).

Thomas L. Fraser.

Second-Class Certificates (in order of merit).

11. James A. S. Burges,
James Hendry, M.A. } Equal.
13. James Buchanan.
14. John N. Sutherland.
15. James Harper, M. A.,
Daniel W. Ritchie, } Equal.
17. Gilbert I. Strachan.
18. Charles Auld.
19. Robert H. Deans,
William Macewen,
Jeanie D. M'Whirter, M.A., } Equal.
22. Lousia E. Dodge,
Alexander T. M'Whirter, } Equal.
24. James E. Black,
James T. Dick,
Archibald C. Haddow,
Honoria S. Keer,
Ian Macdonald,
Malcolm A. MacDonald, } Equal.
30. John R. Haldane,
Andrew B. MacLean, } Equal.

MEDICAL JURISPRUDENCE AND PUBLIC HEALTH.

Professor John Glaister, M.D., D.P.H. (Camb.), F.R.S.E.

Summer Session, 1908.

First-Class Certificates (in order of merit).

James B. Galbraith—Medallist.

Thomas J. Mackie.
John Stewart.
Harold E. Whittingham,
Jeanie D. M'Whirter, M.A., } Equal.
James Hendry, M.A.

Second-Class Certificates (in order of merit).

James M. Scott, M.A.
Malcolm A. MacDonald.
Charles L. Sutherland.
Nicolas Gebbie,
James A. S. Burges,
Agnes M. M'Michael, } Equal.
Daniel W. Ritchie,
Florence E. Sexton, } Equal.
Robert H. Deans,
Andrew S. Findlay,
Gilbert I. Strachan, } Equal.
William Macewen.
Alexander Fraser,
John Bower,
Charles Auld,
Robert R. Archibald, M.A.,
John M. Scott, M.A., } Equal.
Alexander T. M'Whirter,
Marion A. Wylie, M.A., } Equal.

ANATOMY.

Professor John Cleland, M.D., LL.D., D.Sc., F.R.S.

Seniors.

Medal—Charles Cameron, M.A.

First-Class Certificates.

William MacMurray.
John Gibson, M.A.
John Campbell,
Farquhar Matheson,
Stuart S. Meighan, } Equal.

Second Class Certificates.

John F. Smith, M.A.
William B. Drummond } Equal.
William W. MacNaught, }
Fergus H. Young, M.A.
Alexander S. Wilson.

JUNIORS.

Medal—George Taylor.

First Class Certificate.

Adam Brown.

Second Class Certificates.

Alexander M. Gibson.
Ernest G. Y. [illegible], B.A.

EMBRYOLOGY.

Lecturer—JAMES F. GEMMILL, M.A., M.D.

Summer Session, 1908.

First Class Certificates (in order of merit).

1. William MacMurray (Medal).
2. James E. Paterson.
3. { John B. Baird, B.Sc., } Equal.
   { James G. M'Kinna, }
4. Thomas S. Barrie.
5. { Norman A. Lochhead, } Equal.
   { Stuart S. Meighan, }
   { Fergus H. Young, M.A. }

Second Class Certificates (in order of merit).

1. Joseph Dunbar.
2. Kenneth Paterson.

APPLIED ANATOMY.

Lecturer—ROBERT KENNEDY, M.A., M.D., D.Sc.

Summer Session, 1908.

First Class Certificate.

John A. M'[illegible].

PHYSIOLOGY.

PROFESSOR D. NOËL PATON, B.Sc., M.D.

First Class Certificates.

1. William B. Wilson (Medal).
2. Stuart S. Meighan.
3. Graham Stevenson.
4. William C. Davidson.
5. Samuel Blumenfeld.
6. Alexander M. Gibson, }
7. Thomas Martin, } Equal.
8. John Dickie, }
9. James H. Robertson.

Second-Class Certificates.

10. James H. Dible, } Equal.
11. Norman M'Farlane,
12. William B. Drummond, } Equal.
13. Richard A. Barlow,
14. John E. Fyfe, } Equal.
15. Norman V. Lothian,
16. John B. Orr, M.A.
17. Hendrik C. van der W. Smit, } Equal.
18. John C. Pyper,
19. Alexander Glen
20. Alexander R. B. Soga, }
21. Johannes G. Becker,
22. Joseph Dunbar,
23. Ellen B. Orr,
24. Jeanie W. Jones,
25. Christine Larsen,
26. Janet S. Doak, } Equal.
27. John R. R. Ritchie,
28. Ernest G. Y. Thom, M.A.
29. John M. Macpherson,
30. William Whitelaw,
31. Charles A. M'Guire, }

PRACTICAL PHYSIOLOGY—HISTOLOGY SECTION.

Professor D. Noël Paton, B.Sc., M.D.

Summer Session, 1908.

Medal and First-Class Certificate.

John C. Pyper.

First-Class Certificates.

Alexander M. Gibson, } Equal.
Farquhar Matheson,
Charles Cameron, M.A.
Charles Averill.

John R. Grice, M.A., }
Petrina Stewart,
Thomas Martin, } Equal.
Ronald Stewart, }

Second-Class Certificates.

James E. Paterson.
Thomas S. Barrie.
Hugh Y. Riddell, } Equal.
William B. Wilson,
John M. Macpherson, } Equal.
Robert C. Corbett,

Kinloch Falconer, }
John Campbell,
James M. Grier, M.A.,
Joseph Dunbar. } Equal.
Alexander R. B. Soga,
Leopald Glushak, }

Archibald Gardner, }
Edward S. Russell, M.A., } Equal.
Ellen B. Orr, }

MATERIA MEDICA AND THERAPEUTICS.

Professor Ralph Stockman, M.D.

First-Class Certificates.

David T. C. Frew (Medal).
James E. Paterson.

Thomas S. Barrie, } Equal.
Charles Cameron, M.A.,

Second Class Certificates.

William MacMurray, } Equal.
John F. Smith, M.A., }
Kinloch Falconer, } Equal.
James F. Quigley, }
Norman M'Farlane.
Farquhar Matheson, } Equal.
James D. Mackinnon, }
William G. Goudie.

Robert C. Corbett, }
William Johnston, } Equal.
William W. MacNaught, }
Fergus H. Young, M.A., }
James W. Anderson, }
John Campbell, } Equal.
Thomas Whitelaw, }
Alexander S. Wilson. }
John F. M'Vie.

PRACTICAL PHARMACY

PROFESSOR RALPH STOCKMAN, M.D.

Summer Session, 1908.

Medal and First Class Certificate.

James F. Paterson.

Second Class Certificates.

David T. C. Frew.
James M. Greer, M.A.
Robert C. Corbett.
William MacMurray.

Hugh Barrie.
Joseph A. H. Teller.
Thomas W. Whitelaw.

BOTANY

PROFESSOR F. O. BOWER, Sc.D., F.R.S.

Summer Session, 1908.

SYSTEMATIC.

First Class Certificates.

James Wyllie (Medal).

Graham Stevenson, } Equal.
James G. M'Kinna, }

Second Class Certificates.

Norman V. Lothian.
Thomas Martin.
John M. Macpherson, } Equal.
David Smith, }
Richard A. Barlow.
Sarah Naismith, }
James Hunter, M.A., B.Sc., }
William B. Drummond, } Equal.
James Whyte, }
Edward S. Russell, M.A., }

John E. Orr, M.A., } Equal.
William C. Davidson, }
William Forsyth.
Henry S. Bagley, } Equal.
Adam Brown, }
Frank M. Robertson, } Equal.
John Drake, }

PRACTICAL.

First Class Certificates.

James G. M'Kinna (Medal).
James Wyllie.

John M. Thompson, } Equal.
Guy D. M'Lellan, }

Second Class Certificates.

James Whyte.

Edward S. Russell, M.A.

HERBARIUM PRIZE.

No Competition.

BOTANY COURSE FOR M.A.

Lecturer—WILLIAM H. LANG, D.Sc., M.B.

First-Class Certificates.

Janet B. Gallie.
James A. M'Cardel.

Second-Class Certificates.

John Thomson.
Ruth R. M'Nab,
Marion Walker, Equal.
William R. Snodgrass,
Ida N. Brown.
George M'Gregor.
George W. Ewart.
Mary M. Chalmers,
Margaret C. Mackenzie, Equal.
John Bennett,
Helen M. Yuille, Equal.

ZOOLOGY.

PROFESSOR JOHN GRAHAM KERR, M.A., F.R.S.

SYSTEMATIC.

First-Class Certificates (in order of merit).

1. Archibald H. Ritchie (Medal).
2. David Smith.
3. John S. K. Boyd.
4. William J. Henry.
5. Thomas M. Newton.
6. Donald A. Ross.
7. Ewen S. Macphee.
8. Ian D. Suttie, George Taylor, Equal.
10. Nathaniel Crichlow, Henry S. Banks, Equal.

Second-Class Certificates (in order of merit)

12. John Connell, William R. Snodgrass, Equal.
14. Ven Kiang Ting.
15. Frank M. Robertson, Benjamin Cohen, Equal.
17. Wallace M. Conley, M.A.
18. George Hislop.
19. William A. Brechin, James L. Brownlie, Equal.
21. John F. Hutton, Ronald Stewart, Marion Thompson, Equal.

PRACTICAL.

First-Class Certificates (in order of merit).

1. Lucy A. Carter, Archibald H. Ritchie, Equal (Medals).
3. John F. Lang, M.A.
4. Archibald U. Millar, Ven Kiang Ting, Equal.

Second-Class Certificates (in alphabetical order).

Henry S. Banks.
John S. K. Boyd.
William A. Brechin.
Wallace M. Conley, M.A.
Nathaniel Crichlow.
James B. Fotheringham.
Edith M. Hewlett.
William M. Howells.
Peter A. M'Callum.
Donald M. M'Intyre.
Donald Mackinnon.
William E. Maitland.
Thomas M. Newton.
Sarah A. J. Rankine.
Donald A. Ross.
David Smith.

ADVANCED CLASS.

First-Class Certificates.

William C. Davidson,
Archibald H. Ritchie, Equal.
Monica Taylor,

Second Class Certificates.

Lucy A. Carter.
Norman A. Lothian.
Daniel G. O'Brien, M.A., } Equal.
William R. Snodgrass, }
Harriet F. Allison, } Equal.
John F. Lang, M.A., }

PHYSICS.

Lecturer—James G. Gray, B.Sc.

Summer Session, 1908.

Medals.

Henry S. Banks, } Equal.
Neil Y. Wilson, }

Next in order of merit—George M. White.

First Class Certificates (in alphabetical order).

Henry S. Banks.
David Campbell.
James H. Dible.
John Dickie.
Alexander Glen.
Andries J. Joubert.
Johannes A. Kruger.
John M. Macpherson.
Sarah Naismith.
Sarah A. I. Scobbie.
David Smith.
Graham Stevenson.
Ronald Stewart.
Angus M. Walker.
George M. White.
Neil Y. Wilson.

Second Class Certificates (in alphabetical order).

Johannes G. Becker.
Samuel Blumenfeld.
John S. K. Boyd.
Adam Brown.
William Brown.
James L. Brownlie.
John S. Buchanan.
John Connell.
William C. Davidson.
William B. Drummond.
William Forsyth.
Alexander M'C. Gibson.
William Gibson.
James Hamilton.
William M. Howells.
Douglas M. Hunter.
John M'Ghie.
Charles A. M'Gown.
Guy D. M'Lean.
Ewen S. Macphail.
William F. Maitland.
Horace Martin.
William Montgomery.
James L. R. Philip.
Frank M. Robertson.
James L. Robertson.
Frank Sawers.
John F. M. Sloan.
Hendrik C. van der W. Steyn.
Agnes Stirling.
Ian D. Suttie.
Janet M. Walker.
James C. Watt.
William F. Wood.

CHEMISTRY.

Professor John Ferguson, M.A., LL.D., F.S.A.

Joseph Black medals, and George Roger Muirhead prize.

Herbert L. May, } Equal.
David F. Watson, }

First Class Certificates.

Duncan G. Anderson.
Robert Campbell.
Benjamin Cohen.
John W. Fairbairn.
Alexander Gray.
Herbert Le May.
Arthur S. Morrison.
William M. Smart.
David F. Watson.
Ralph S. Weir, M.A.

Second-Class Certificates.

John S. K. Boyd.
William G. Burrell.
David I. Byers.
David Campbell.
Nathaniel Crichlow.
William N. Cunningham.
Alexander Fleck.
James Y. Hart.
Wilfrid L. Jones.
Daniel Kerr.
Archibald R. Lindsay.
Robert Macaulay.
Peter A. M'Callum.
Alexander M'Crorie.
John O. M'Gregor.
Charles W. Marshall.
William R. Smellie M.A.
Caleb A. Stewart.
William Thomson.
James Wyllie.
Thomas M. Young.

ORGANIC CHEMISTRY.

Lecturer—THOMAS S. PATTERSON, D.SC., PH.D.

First-Class Certificates.

Thomas M. Newton, } Equal.
Ralph S. Weir, M.A., } Equal.

Second-Class Certificates.

Farquhar MacRae, M.A.
John S. K. Boyd.
David Campbell.
Alexander Fleck. } Equal.
Thomas R. Sinclair, } Equal.

ADVANCED.

Summer Session, 1908.

First-Class Certificates.

Harvey H. Montgomerie.

Second Class Certificates.

Janet Ritchie.
John Selfridge, M.A.

Faculty of Science.

METALLURGICAL CHEMISTRY.

CLASSES A AND B.

Lecturer—CECIL H. DESCH, D.Sc., Ph.D.

Certificates of Merit.

Thomas A. Heap.
John M'Pheely.
Farquhar MacRae, M.A.
Francis Morrison.
Daniel G. O'Brien, M.A.
John Selfridge, M.A.
John H. Smith, B.Sc.

GEOLOGY.

PROFESSOR JOHN W. GREGORY, D.Sc., F.R.S.

PART I.

First-Class Certificates.

David Arthur Shepherd, M.A. (Medal).
Archibald Jubb, M.D.
Henry H. Green.
Robert Mair.
Ralph S. Weir, M.A.
Robert Thomson, M.A.
Harriet E. Allison.

Second Class Certificates.

John P. Jones.
Andrew Adams.
Henry M. Lanton
David Adam.
Alexander Mowat
Charles D. [illegible]
Wei Tong.
James Wyllie.
Robert M. [illegible]

PART II

First Class Certificates.

James M. Wordie (Medal).
John E. Macdonald, M.A.

Second Class Certificates.

John Niven, M.A.
John M. Thompson, M.A.
Robert C. Davie, M.A.
London Arrol, M.A.
James H. Mitchell, M.A.
Donald Paton, M.A.

ASTRONOMY.

PROFESSOR LUDWIG BECKER, PH.D.

Class Prize—Caleb A. Stewart.

ENGINEERING.

PROFESSOR ARCHIBALD BARR, D.Sc., M.Inst.C.E.

George Harvey Prize.

Peter D. MacFeat, Glasgow.

Walker Prizes.

1. Peter D. MacFeat.
2. Alick L. Tackley, London.
3. { James Wilson, Cowcaddens, } Equal.
   { Purna C. Ganguly, Bengal, }

Muir Bursaries.

Francis Morrison, Aberdeen.
William L. Spence, K[illegible]

CLASS IV.

Peter D. MacFeat (second attendance).
1. Alick L. Tackley.
2. James Wilson.
3. Walter Brown, M.A., Glasgow.

Next in Order.

Purna C. Ganguly.
James K. Riddoch, Glasgow.
Robert Stewart, Govan.

CLASS III.

1. { Richard V. Hansford, Dorset, } Equal.
   { Francis Morrison, }

Next in Order.

Robert Frew, B.Sc., Glasgow.
Archibald Macintyre, R[illegible]

CLASS II.

1. Robert Thomson, M.A., Kilmarnock.
2. Peter D. MacFeat (second attendance).
3. James K. Riddoch.

Next in Order.

David B. M'Lay, Uddingston.
Robert E. Marriott, Norfolk,
Daniel G. O'Brien, M.A., Ipswich, Equal.
Hugh B. G. Robertson, Glasgow,

Class I.

1. William F. Sparey.
2. Francis Morrison,
Robert Thomson, M.A., Equal.

Next in Order.

Charles W. Marshall, Carluke. William M. Ramsay, Kilmarnock.
Henry M. Linton, Glasgow. Charles D. Mottram, Glasgow.

Engineering Drawing and Design—Senior Class.

Peter D. MacFeat (second attendance)—Special Prize.

1. William Macgregor, Greenock. 2. James K. Riddoch.

Next in Order.

Robert Stewart. James D. Campbell, Glasgow.

Engineering Drawing and Design—Junior Class.

1. Henry M. Linton. 2. William F. Sparey.
3. Robert K. Ferguson, Glasgow.

Next in Order.

Francis Morrison,
Adi Nath Sen, M.A., India, Equal.

Engineering Laboratory—First Course.

1. Archibald Macintyre,
William F. Sparey, Equal.
3. William M. Ramsay.

Next in Order.

Robert K. Ferguson,
Sergius Lapotnicoff, St. Petersburg, Equal.
Wai Tsen Wang, China,
Andrew J. R. Paul, Dumbarton.

Engineering Laboratory—Second Course.

1. James D. Campbell,
James K. Riddoch,
Alick L. Tackley, Equal.
James Wilson,

Next in Order.

Alexander S. MacWhirter, Glasgow.

Engineering Laboratory—Third (Special) Course.

1. Harry H. Vaughan, Glasgow.

Next in Order.

Robert Frew, B.Sc.

ELECTRICAL ENGINEERING

Lecturer—John S. Nicholson, B.Sc., A.M.I.E.E.

Class I.

1. Francis Morrison.
2. Robert Frew, B.Sc.

Next in Order.

Peter D. MacFeat (second attendance).
James Wilson,
Harry C. W. Bishop, Staffs.
William M. Ramsay,
William Henderson, Jamaica, } Equal.

Class II.

1. Alick L. Tackley.

Next in Order.

Eric Davies, London.
William [illegible]
Alexander S. MacWhirter.

Mining.

Professor Charles Latham, M.Inst.C.E.

Class I.

Thomas L. M'Bride.
David Allan.
William G. M'Cracken.

Class II.

Robert Thomson, M.A.
Henry M. Linton.
David Adam.
Matthew W. Neilson.
Wm. Tone.
John P. Jones.

Class III.

Charles D. Mottram.
Alexander Cobb.

NAVAL ARCHITECTURE, INCLUDING MARINE ENGINEERING

Professor J. H. Biles, Mem. Counc. I.N.A., M.I.C.E., LL.D.

Kirk Memorial Prize.

George Jackson.

Senior Class Prize.

George Jackson.

Junior Class Prize.

Andrew M. Robb.

Drawing Class Prize.

Eugene Bertens,
Theodore Gratchoff, } Equal.

Faculty of Arts.

HISTORY.

Professor Dudley J. Medley, M.A.

Prizes.

1. Andrew Browning.
2. Alexander Dingwall.
3. Helen G. Cook.
4. Andrew Inglis.
5. Williemina S. Bain.
6. William D. Robieson.
7. Walter G. Cook.
8. Duncan M. Bowie.
9. Andrew L. M. Mackenzie.
10. Helen E. Fair.

Certificates.

Charles E. Stokes.
Dorothy C. Robertson.
George B. Smith.
Agnes J. Logan.
Matthew Bowie.
John M. Short.
Barbara P. Macfarlane.
Louisa G. C. Whyte.
Thomas R. Allison.
John Smith.
Alexander S. Small, M.A., B.Sc.

MATHEMATICS.

Professor William Jack, M.A., LL.D., D.Sc.

Advanced Honours.

1. William M. Smart (Cunninghame Gold Medal).
2. Donald C. Smith, M.A.
3. David F. Watson.
   Robert P. Black.

Isabella B. Sutherland (Second Year Prize).

First-Class Certificates with Distinction.

John M. M'Neill (Second Year Student).
Thomas H. Black.
Janet M'Cabe.

Intermediate Honours (Division A.)

1. Charles C. Mylles.[1]
2. David G. Ramsay.
3. James Forrest.
4. Jeanie Hepburn.

First-Class Certificate with Distinction.

John Brown.

Intermediate Honours (Division B.)

1. Arthur S. Morrison.
2. Alexander Gray.
3. Charles W. Marshall

Graduating Class.

1. James White (B.).[2]
2. Alexander Banks (B.).
3. Thomas B. Waddell (B.).
4. John M. Garlick (B.).
   David Ferguson (A.).
   David Hutton (A.).
7. John Walker (A.).
8. Andrew M'Cracken (B.).
9. Herbert Le May (A.).
10. Mary C. M'Coll (Q.M.).
    Jessie M'Connell (Q.M.).

---

[1] Mr. Mylles obtains the Senior Muir Bursary in Mathematics.

[2] Mr. White obtains the Junior Muir Bursary in Mathematics.

First Class Certificates with Distinction.

George R. Stewart (B.)
Elizabeth Smith (Q.M.).
Mrs Evelyn Gall (B.)
John O. M'Gregor (A.)
Robert Stewart (A.)
John A. Black (B.)
George Peters (A.)
William Thomson (A.)
William Peebles (B.)
Charles M'Bride (A.)
Robert A. Watson (B.)
Wilfred L. Jones (A.)

Summer Session, 1908.

Lecturers—Robert J. T. Bell, M.A., D.Sc., and Neil M'Arthur, M.A., B.Sc.

Graduating Class.

1. George A. Johnston.
2. Janet E. Copeland.

NATURAL PHILOSOPHY

Professor Andrew Gray, M.A., LL.D., F.R.S.

Higher Mathematical Class. Section A.

Prizes.

1. { John S. Anderson (second year).
   { Donald C. Smith, M.A. (first year).
2. Caleb A. Stewart (second year).

First Class Certificates.

Thomas H. Black.
Isabella E. Sutherland (second year).

Higher Mathematical Class. Section B.

Prizes.

1. George Jackson.
2. { John S. Anderson.
   { Isabella E. Sutherland.

First Class Certificates.

Thomas H. Black.
William V. Forrest.
Alexander M'Crorie.
Satis C. Majumder, B.Sc.
William M. Smart.
Donald C. Smith, M.A.
Mack L. Eckley.
Sebastian G. M'Intyre, B.Sc.
John P. West.

Ordinary Graduating Class.

Prizes.

1. Archibald R. Lindsay (Cleland Gold Medal).
2. George H. Henderson.
3. Alexander Gray.
4. { Alexander Love.
   { James M'Farlane.
5. James G. Docherty.
6. { Gilbert W. Clark.
   { Charles Robertson.
7. Wilhelmina S. Bain.

First Class Certificates.

Duncan G. Anderson.
James Barnet.
John Bennett.
Matthew Bowie.
David Campbell.
James Forrest.
James Y. Hart.
Alexander D. MacLaren.
Alexander S. Milne.
John M. Ruthven.
Thomas B. Waddell.
Neil Y. Wilson.
James M. Wordie.
James Wyllie.

Special Graduating Class.

Prizes.

1. Charles C. Mylles.
2. John A M'Aulay.
3. David Dick.

First-Class Certificates.

Annie S. Allan.
Janet H. Baxter.
Mary Craig.
John Garrett.
David Hardie.
Janet D. Hyslop.
Joseph Lawson.
Duncan M'Corkindale
Angus Macdonald.
Sarah M'Gill.
Agnes K. J. M'Millan.
Janette W. Marshall.
John Marshall.
Emily Pairman.
Andrew Peebles.
Christiana M. Russell.
Robert Stewart.
Margaret J. Stratton.
Frank Turner.
Andrew P. Wyllie.
Helen Yuille.

PHYSICAL LABORATORY.

Advanced Course.

First-Class Certificates.

Whole Session.

John S. Anderson (Prize).
John A. Hodge.

Half Session.

John Logie.
James Whyte.

Ordinary Course.

Winter Session, 1908-9.

First-Class Certificates.

Whole Session.

Martin Pitt (Prize).
George Crozier.
James G. Docherty.
James Y. Hart.
John C. Hill.
Archibald R. Lindsay.
Vincent Lowe.
James M'Farlane.
Duncan J. Mackellar.
Sven T. D. Petersen.

Half Session.

James Barnet.
Gilbert W. Clark.
George H. Henderson.
William S. Kerr.
Alexander J. Mitchell.
Walter G. Pearson.
John C. Robertson.
Edward C. Smith.
Thomas B. Waddell.

Summer Session, 1908.

First-Class Certificates (in alphabetical order).

William G. Burrell.
Lucy A. Carter.
Alexander M'Crorie.
Charles W. Marshall.
Michael O'Callaghan.
Donald C. Smith.

ELECTRICITY—PURE AND APPLIED.

Lecturer—George E. Allan, D.Sc.

Prize and First-Class Certificate.

Francis Morrison.

LOGIC AND METAPHYSICS.

PROFESSOR ROBERT LATTA, M.A., D.PHIL.

ORDINARY CLASS.

Prizes.

1. Mary Marwick (Buchanan Prize).
2. James A. M'Candel.
3. David Miller, M.A.
4. Archibald Chisholm.
5. Alexander R. Brown, George A. Miller, } Equal
7. Robert Lindsay.
8. Jemima E. Leask.
9. Neil E. M'Leod.
10. Walter G. Cook.

First Class Certificates of Merit (in alphabetical order).

Thomas R. Allison.
Archibald Barton.
Alexander H. Bodin.
Duncan M. Bowie.
John Brown, M.A.
Andrew W. Burgess.
Mrs Evelyn Gall.
Francis Graham, M.A.
George H. Havelock.
John Hutchinson.
Thomas Jack.
William F. Ritchie.
Robert Mackinlay.
David M'Dougall.
Ian D. Macgregor.
Ruth K. M'Nair.
Miss Evelyn M. H. Ramm.
Charles L. Stokes.
Margaret J. Stratton.
Daniel F. Taylor.
Robert Todd.

MORAL PHILOSOPHY.

PROFESSOR HENRY JONES, M.A., LL.D., D.LITT., F.B.A.

Honours Class.

1. Hector J. W. Hetherington (Edward Caird Medal, together with Mrs John Caird's Prize of Three Guineas).
2. Norman Crockatt, George D. Henderson, } (Mrs John Caird's Prize of Two Guineas).

Mrs. John Caird's Prize of Five Guineas for Summer Work.

Norman Crockatt,
George D. Henderson,
Hector J. W. Hetherington, } Equal

ORDINARY CLASS.

Prizes and First Class Certificates of Merit for General Eminence in the Essays and Examinations of the Class.

1. Matthew W. Robieson (Buchanan Prize).
2. George A. Johnston.
3. Archibald Chisholm.
4. James C. Corrin.
5. Alexander H. Bodin.
6. Gladstone L. B. Small.
7. William Anderson.
8. Evangeline W. Adam.
9. James Kellock.
10. Thomas Jack.

Mrs John Caird's Prize of Five Guineas for Excellence in the Essays of the Class was divided.

1. George A. Johnston (Three Guineas).
2. Matthew W. Robieson (Two Guineas).

POLITICAL PHILOSOPHY.

Lecturer—Robert A. Duff, M.A., D.Phil.

First-Class Certificates.

Norman Crockatt.
George D. Henderson.
Hector J. W. Hetherington.
George Scott, M.A.
Alexander S. Small, M.A., B.Sc.

POLITICAL ECONOMY.

Professor William Smart, M.A., LL.D., D.Phil.

The Alexander Smart Memorial Prize of £10 in Books.

George A. Johnston.

Class Prizes.

1. George A. Johnston.
2. Matthew W. Robieson.
3. James Baillie.
4. Henrietta H. Duff.
   Andrew Inglis.
5. Stuart C. Parker.

Proxime Accesserunt.

John Kennedy.
Alexander S. Small, M.A., B.Sc.
Eleanor Smith.
Leslie Vickers.

EDUCATION.

Lecturer—William Boyd, M.A., B.Sc.

Prizes.

1. James Porter, M.A.
2. Bethia M. Cowan.
   Catherine Craig, M.A.
4. Henrietta H. Duff.
5. Duncan M. Bowie.
   Mabel Stewart, M.A.
7. Mary R. Knight.

First Class Certificates.

Jeanie Hamilton.
David Millar, M.A.
Margaret B. Cox.
Mary A. Dewar.
William A. Munro, M.A.
James A. M'Cardel.
Theodora Keith.
Isabella M. Lennox.
Elizabeth B. Robertson.
Elizabeth L. Maclullich.
John C. M'Fadyen.
Hugh Smith, M.A., B.Sc.
Robert Brown.
Ferdinand Friedenthal, M.A.

LATIN.

Summer Session, 1908.

Lecturer—Robert G. Nisbet, M.A.

Prize.

Andrew L. M. Mackenzie.

HUMANITY.

Professor John S. Phillimore, M.A.

Honours Class.

Ramsay Medal and First Muirhead Prize.

James B. Hutton.

Second Muirhead Prize.

William R. Cunningham.

ORDINARY CLASS.

Cowan Medallist.

James White (Hamilton Academy).

Prizemen (in general order of merit).

2. Eleanor J. M. Donaldson (Girls' High School).
3. John A. Black (Glasgow High School).
4. John M. Garlick (Dollar Institution).
5. Graham B. Jardine (Glasgow Academy).
6. Thomas B. Noble (Dumfries Academy).

Prizes for Prose.

Professor Phillimore's Section.

James White
John A. Black
Graham B. Jardine.

Mr. Shepherd's Section.

Thomas S. Weir (Lanark Grammar School).
Eleanor J. M. Donaldson.
Elspeth S. Matheson (Dumbarton Burgh Academy).

Prizes for Translation Papers.

James White.
Eleanor J. M. Donaldson.
John M. Garlick.
David G. Ramsay (Whitehill H.G. School).
Beatrice H. M'Ainsh (Polmont P.S.).

Certificates of Distinction (in alphabetical order).

Robert P. Arnot (Greenock Academy).
Mary A. Dickson (Ayr Academy).
Robert P. Douglas (Wishaw H.S.).
John Hamilton (Hutchesons' Boys' Grammar School).
David Hutton (Dalziel H.S., Motherwell).
Gavin Lawson (Uddingston Grammar School).
Margaret A. M'Arthur (Vale of Leven Academy).
Andrew M'Cracken (Ayr Academy).
Donald MacLeod, Canada (N. Kelvinside H.G. School).
Robert Paterson (Airdrie Academy).
George Peters (Kent Road H.G. School).
John Phemister (Fairfield H.G.S., Govan).
Margaret R. Richmond (Paisley Grammar School).
George M. D. Short (Spiers' School, Beith).
Hercules D. Soutter (Greenock Academy).
George R. Stewart (Ayr Academy).

Blackstone Examination.

Cowan Gold Medal.

William R. Cunningham.

GREEK.

PROFESSOR GILBERT A. DAVIES, M.A.

HONOURS CLASS (first year only).

First-Class Certificates (in order of merit).

1. James B. Hutton (Scott-Macfarlan Gold Medal).
2. Archibald N. M'Alpine (First Prize).
3. Ernest Evans (Second Prize).
4. Annie M. Conway.
5. Tom D. Miller.
6. William C. H. Neill.

Prizes for Prose.

1. James B. Hutton. 2. William C. H. Neill.

Prizes for Translation.

1. James B. Hutton. 2. Archibald N. M'Alpine.

ORDINARY CLASS.

First-Class Certificates (in order of merit).

1. Andrew M'Cracken (Jeffrey Gold Medal).
2. Eleanor J. M. Donaldson (First Prize).
3. James White (Second Prize).
4. David G. Ramsay (Third Prize).
5. Gavin Lawson.
6. John Hamilton.
7. Graham B. Jardine.
8. Hercules D. Soutter.
9. Thomas B. Noble.
10. Alexander B. Muir.

Prizes for Prose.

1. Andrew M'Cracken. 2. Eleanor J. M. Donaldson.
3. James White

Prizes for Translation.

1. James White. 2. Alexander B. Muir.
3. Eleanor J. M. Donaldson.

Prizes for Oral Work (adjudged by the votes of the Class).

1. Hercules D. Soutter. 2. Andrew M'Cracken.
3. James White.

FOR VACATION EXERCISES.

Prize for Prose—James B. Hutton.
Prize for Repetition—John M. Williamson.

Blackstone Examination.

Cowan Gold Medal—Annie M. Conway.

ENGLISH LANGUAGE AND LITERATURE.

PROFESSOR WILLIAM MACNEILE DIXON, M.A., Litt.D., LL.B.

Prizemen.

1. James Manson (Buchanan Prize).
2. Duncan Anderson.
3. { Thomas A. Cleghorn.
   William E. G. Millar.
5. { William R. Cunningham.
   John M. Williamson.
7. William B. Weir.
8. Norman Crockatt.

First-Class Certificates.

Henry S. Banks.
William B. Henderson.

HONOURS CLASS—LANGUAGE.

Section A. (Advanced.)

1. Jessie M. Smith (Scottish Text Society's Prize).
2. Margaret Irish.
3. William G. Johnston, M.A.

Section B.

1. Ruby Jex Long, Barbara P. Macfarlane, (Early English Text Society's Prizes).
3. Grace H. Stark.
4. William Stevenson.
5. Thomas Wright.
6. Margaret E. Buchanan.
7. John Falconer, M.A.

FRENCH LANGUAGE AND LITERATURE.

LECTURER—CHARLES MARTIN, M.A., O.A.

HONOURS CLASS.

Prizes.

1. Prize offered by the Minister of Public Instruction in France.
Agnes Morton.

2. Silver Medal offered by the Alliance Française.
Alice M. Nelson.

3. Margaret E. Martin, Nettie H. Stein, Equal.
4. William G. Walker.

First-Class Certificates of Merit.

John Robb.
Hilda D. Christie.
Mary Thomson.
Margaret B. Weir.

ORDINARY CLASS.

Prizes.

1. Bronze Medal offered by the Alliance Française.
James Gibson.

2. Alexander M. Kennedy.
3. James H. Adams, James G. Turnbull, Equal.

First-Class Certificates of Merit.

Rollo R. G. Sutherland.
Finlay M. Urquhart.

GERMAN LANGUAGE AND LITERATURE.

Lecturer—HERBERT SMITH, M.A., Ph.D.

ORDINARY CLASS.

Prizes and First-Class Certificates.

Isabella T. M'Nair.
Margaret Drew Smith.

First-Class Certificate.

James Gibson.

HONOURS CLASSES.

Second Year.

Prizes and First-Class Certificates.

Nettie H. Stein.
Agnes Morton.
Alice M. Nelson.

First-Class Certificates (in alphabetical order).

Hilda D. Christie.
David L. Grant.
Margaret E. Martin.
Mary Thomson.
William G. Walker
Margaret B. Weir.

First Year.

Prizes.

Isabel Robertson.
Mary R. Mather.

CELTIC.

Lecturer—GEORGE HENDERSON, M.A., B.Litt., Ph.D.

Prizes and First-Class Certificates of Merit.

1. Norman Macleod.
2. John Davidson.

WOMEN'S DEPARTMENT.

Faculty of Medicine.

SURGERY.

Lecturer—JAMES HOGARTH PRINGLE, M.B., F.R.C.S.

First-Class Certificate.

Ethelwyn M. Walters (Medal).

Second-Class Certificates.

Barbara Sutherland, M.A.
Mary Alexander, M.A.
Anna Chose.
Margaret E. Rutherford, } Equal.
Euphemia A. Hay, } Equal.

PRACTICE OF MEDICINE.

Lecturer—WALTER K. HUNTER, M.D., D.Sc.

First-Class Certificates.

1. Margaret E. Robertson (Medal).
2. Florence E. Sexton.
3. Marion A. Wylie, M.A.

Second-Class Certificates.

Agnes M. M'Michael.
Jeanie D. M'Whirter, M.A.

MIDWIFERY

Professor Murdoch Cameron, M.D., and Samuel J. Cameron, M.B.

Second Class Certificates.

Margaret Muir.
Jessie D. M'Whirter, M.A.

INSANITY

(See under Men's Department.)

PATHOLOGY.

(See under Men's Department.)

MEDICAL JURISPRUDENCE AND PUBLIC HEALTH

(See under Men's Department.)

ANATOMY.

Lecturer—Thomas H. Bryce, M.A., M.D.

Senior Class.

First Class Certificates.

Agnes B. Auchencloss.
Ellen B. Orr.

Second Class Certificates.

Barbara Macgregor.
Barbara G. Rutherford.
Katherine S. Macphail.
Jeanie W. [illegible]

Junior Class.

First Class Certificate.

Janet R. Anderson.

Second Class Certificates.

Nora M. Allan.
Marion Thompson.
Gertrude M. Knight.

PHYSIOLOGY

(See under Men's Department.)

MATERIA MEDICA AND THERAPEUTICS

Lecturer—William MacLennan, M.B.

Medal and First Class Certificate.

Barbara G. Rutherford.

PRACTICAL PHARMACY.

Lecturer—William MacLennan, M.B.

Summer Session, 1908.

First Class Certificates.

Ruth Ashby (Medal).
Lucy M. Ross.

BOTANY.

(See under Men's Department.)

ZOOLOGY.

(See under Men's Department.)

PHYSICS.

(See under Men's Department.)

CHEMISTRY.

Lecturer—Herbert W. Bolam, B.Sc., Ph.D.

Systematic Class.

First-Class Certificates.

Mary C. M'Coll (Medal).
Dorothy C. Patterson.

Second-Class Certificates.

Annie P. M'Laren.
Maud Millen.
Agnes L. I. Forrest, } Equal.
Ellen G. M'Ghee,
Nora M. Allan.

Practical Class.

First-Class Certificates.

Nora M. Allan.
Marion Thompson.

Second-Class Certificates.

Sarah A. J. Rankine.
Annie R. M'Kail.
Mary P. Hislop.
Janet F. Henderson.
Ethel Crawford, } Equal.
Agnes Y. Walker,
Grace G. T. Anderson.

ORGANIC CHEMISTRY.

(See under Men's Department.)

Faculty of Science.

GEOLOGY.

(See under Men's Department.)

Faculty of Arts.

HISTORY.

(See under Men's Department.)

CONSTITUTIONAL LAW AND HISTORY.

(See under Men's Department.)

MATHEMATICS.

(See under Men's Department.)

NATURAL PHILOSOPHY.

(See under Men's Department.)

LOGIC AND METAPHYSICS (AT THE UNIVERSITY).

(See under Men's Department.)

MORAL PHILOSOPHY (AT THE UNIVERSITY).

(See under Men's Department.)

MORAL PHILOSOPHY (AT QUEEN MARGARET COLLEGE).

Lecturer—John W. Scott, M.A.

First Class Certificates.

Helen E. Fair (Prize).
Mary A. Dewar.

POLITICAL ECONOMY.

(See under Men's Department.)

EDUCATION.

(See under Men's Department.)

LATIN.

(See under Men's Department.)

GREEK.

(See under Men's Department.)

ENGLISH LANGUAGE AND LITERATURE.

Professor William Macneile Dixon, M.A., Litt.D., LL.B.
John S. Smart, M.A., and Robert Dewar, M.A.

Honours Class.

(See under Men's Department.)

Ordinary Class.

Prizes.

1. Mary Marwick (Nichol Memorial Prize).
2. Janet G. Reid.
3. Jeannie Sutherland.
4. Janet E. Copeland.
5. Margaret Jockel.
6. Evelyn M. H. Rennie.
7. Ann C. Thomson.

FRENCH LANGUAGE AND LITERATURE.

Lecturers—Charles Martin, M.A., O.A., and Leon Pitoy, L. ès L. Phil.

Honours Class.

(See under Men's Department.)

Ordinary Class.

Prizes.

1. Medal offered by the Alliance Française—Marjorie M. Ferguson.
2. Catherine M. M'Kinnon.
3. Janet E. Copeland.
4. Elsie F. Farquharson.
5. Margaret P. Robb.
6. Thomasina Carmichael, Margaret S. Finlayson, Jane Sillars, Equal.
7. Margaret S. Battersby.

First-Class Certificates of Merit (in order of merit).

Henrietta C. Orr,
Catherine M. Loudon, } Equal.
Helen Gallacher,
Mary I. Bilsland,
Jean Kirkland, } Equal.
Mary K. Macmillan,
Isabella S. Carmichael.
Katherine D. Barclay.
Margaret Knight,
Isabella C. Low, } Equal.
Wilhelmina M. Rollo,

GERMAN LANGUAGE AND LITERATURE.

(At the University.)

(See under Men's Department.)

GERMAN LANGUAGE AND LITERATURE.

(At Queen Margaret College.)

Lecturer—Herbert Smith, M.A., Ph.D.

Prizes.

Thomasina Carmichael,
Marjorie M. Ferguson, } Equal.
Henrietta C. Orr,

First-Class Certificates.

Helen B. Macfarlane.
Eliza B. Cosh.
Sarah M. Stirling.

Honours.

(See under Men's Department.)

XIV.—EXAMINATION QUESTIONS.

I. PRELIMINARY EXAMINATION IN ARTS AND SCIENCE.

March-April, 1909.

ENGLISH.

FIRST PAPER—Two Hours.

(FIVE, *and not more than* FIVE, *questions are to be answered. Questions* 1, 2, 3, 6 *are to be answered, and either question* 4 *or question* 5.)

1. Write an essay of from two to three pages on one of the following subjects:

(*a*) The poetry of Milton.

(*b*) The causes which have led, and are leading, to migration from the country to the towns.

(*c*) The successive phenomena of a typical Scottish Winter—November to March—and Winter in the symbolism of poetry.

2. State clearly, in your own words and without the use of any figurative language, the thought conveyed by Milton in the following passage:

"Truth indeed came once into the world with her divine master, and was a perfect shape most glorious to look on: but when he ascended and his apostles after him were laid asleep, then straight arose a wicked race of deceivers, who, as that story goes of the Egyptian Typhon with his conspirators, how they dealt with the good Osiris, took the virgin Truth, hewed her lovely form into a thousand pieces, and scattered them to the four winds. From that time ever since, the sad friends of Truth, such as durst appear, imitating the careful search that Isis made for the mangled body of Osiris, went up and down gathering up limb by limb still as they could find them. We have not yet found them all, nor ever shall do, till her master's second coming; he shall bring together every joint and member, and shall mould them into an immortal feature of loveliness and perfection."

3. Give a general analysis of the following sentence, and parse the words italicised :

> Over thy wounds now do I prophesy,
> Which like dumb mouths do *ope* their ruby lips,
> To beg the voice and utterance of my tongue,—
> A curse shall light upon the limbs of men ;
> Domestic fury and fierce civil strife
> Shall cumber all the parts of Italy ;
> Blood and destruction shall be *so* in use,
> And dreadful objects so familiar,
> That mothers shall but smile when they behold
> Their infants quarter'd with the hands of war ;
> All pity *choked with* custom of fell deeds ;
> And Caesar's spirit ranging for revenge
> With Ate by his side come hot from hell,
> Shall in these confines with a monarch's voice
> Cry "*Havoc*!" and let *slip* the dogs of war ;
> *That* this fell deed shall smell above the earth
> With *carrion* men groaning for burial.

4. Give the etymology of *eight* of the following words from the extracts given above :—prophesy, once, domestic, civil, infants, quarter'd, confines, Havoc, conspirators, asleep.

Or,

In what different ways are new words still made in English? Give examples.

5. Define accurately, and illustrate from one or other of the above extracts, the following :—Synecdoche, Personification, Metaphor, Simile, Blank Verse, Caesura, Alliteration, Climax.

6. Amend what is defective in the following passages, giving the correct meaning of any words used amiss :

(*a*) I will aggravate my voice so that I will roar you as gently as any sucking dove ; I will roar you an 'twere any nightingale.

(*b*) Ah, and the properest way o' my conscience! nothing is so conciliating to young people as severity. Well, Sir Anthony, I shall give Mr. Acres his discharge, and prepare Lydia to receive your son's invocations : and I hope you will represent her to the captain as an object not altogether illegible.

(*c*) We will not appear like fools in this matter, and as if we have no authority over our own daughters.

(*d*) St. Paul's writings are as full of apparent paradoxes as sometimes seems the Sermon on the Mount.

SECOND PAPER—Two Hours.

(Eight, *and not more than* eight, *questions are to be answered.* Three *must be taken from Section A* (*and of the three,* 5 *must be one*), three *from Section B* (*and of the* three 4 *must be one*), *and* two *from Section C.*)

A.

1. Give a short account of any *three* of the following: Malory's *Morte d'Arthur*, *Euphues*, *Dr. Faustus*, *The History of the World*, *Samson Agonistes*, Dryden's *Fables*, *The Essay on Man*, *The Task*, *The Excursion*, *Endymion*.

2. What comparison and contrast does *Richard II.* present with another play by a contemporary writer?

Or,

Discuss the characters of the King, Bolingbroke, Gaunt, York.

Or,

Point out and summarise some of the most remarkable speeches in the play.

3. In what metre is *Childe Harold* written? Describe it accurately and compare Byron's handling of it with that of other writers.

Or,

How does Byron deal with—the Rhine, the Alps, Rousseau, Petrarch, Rome?

4. Give some account of the *Spectator* Club and of other clubs mentioned in the first fifty papers.

Or,

Note some points of the treatment, in the *Spectator* 1-50, of politics, dress, theatrical and operatic matters, superstition.

Or,

Point out any distinctions you see in Addison's own manner as compared with the manner of his chief collaborator.

5. Annotate:

(*a*) Like to a tenement, or pelting farm.

(*b*) He fires the proud tops of the eastern pines.

(*c*) To pull the old woman out of our hearts.

(*d*) And all went merry as a marriage bell.

(*e*) I began to think myself in the condition of the good man that had one wife who took a dislike to his grey hair, and another to his black.

(*f*) Statues of glass—all shiver'd.

B.

1. Write short notes on *four* of the following:—Mount Badon, Ashdown, Brunanburh, *Regiam Majestatem*, Papal Interdicts, The Rising in the North, the Court of High Commission, Cromwell's government, Solebay, Blenheim, Admiral Byng, Pulteney, the siege of Gibraltar, the Walcheren Expedition, Navarino.

2. Give an account of *three* of the chief persons of the following families who have figured in British history before 1832:—Howard, Douglas, Pitt, Cecil, Maitland.

[Only three persons *in all* are to be written about.]

3. Give an account (on a fuller scale than those given in reply to question 1) of *two* of the following:—Edgar Atheling, Becket, Simon de Montfort, Lollardy, the Lords of the Articles, the naval part of the great Civil War, the attempts of Argyll and Monmouth against James II., the Porteous Riots, Burke in politics, Warren Hastings, the Union with Ireland.

4. Write a short essay on *one* of the following subjects:—the term "Heptarchy" and its applications; the share of England in the Crusades; Scotland under the Jameses I.-V.; the Wars of the Roses; Scotland under Mary and in the minority of James VI.; the principal plots of English seventeenth century history; the formation of the American Colonies; the share of Great Britain in the Revolutionary War up to the Peace of Amiens; the causes and preliminary history of Parliamentary Reform.

C.

1. Draw a rough map of Africa, south of a line from the Bight of Benin to the Gulf of Aden, indicating the chief political divisions and physical features.

2. Indicate, by the names of important towns, rivers, and mountains, the stages of a land-journey from Lisbon to St. Petersburg.

3. What are the chief foreign possessions of Germany and of France?

4. Give the situation of the following towns, places, etc., with any important historical, political, literary, and commercial facts that you may know about any of them:—Celebes, the Ural Mountains, Ferrara, Texas, Patagonia, the Roman Walls in Great Britain, the Society Islands, the Victoria Falls, Lake Van, the Carpathians.

LOWER LATIN—THREE HOURS.

(N.B.—*All Candidates must satisfy the Examiners in Composition and Translation.*)

I. TRANSLATION.

Tertio decimo anno Neronis imperii, in Gnoso civitate terrae motus facti cum multa, tum etiam sepulchrum Dictyis ita patefecerunt, ut a transeuntibus arcula viseretur. pastores itaque praetereuntes cum hanc vidissent, thesaurum rati sepulchro abstulerunt: et aperta ea invenerunt tilias incognitis sibi litteris conscriptas continuoque ad suum dominum, Eupraxidem quendam nomine, pertulerunt, qui agnitas, quaenam essent, litteras Rutilio Rufo, illius insulae tunc consulari, obtulit. ille cum ipso Eupraxide ad Neronem oblata sibi transmisit existimans quaedam in his secretiora contineri. haec igitur cum Nero accepisset, advertissetque Punicas esse litteras, harum peritos ad se vocavit: qui cum venissent, interpretati sunt omnia. cumque Nero cognosset antiqui viri, qui apud Ilium fuerat, haec esse monumenta, iussit in Graecum sermonem ista transferri, e quibus Troiani belli verior textus cunctis innotuit.

arcula = small box. *tiliae* = sheets of linden-bark.

II. For Latin Prose.

Aemilius sat down in anguish and despair, waiting for the enemy to despatch him. At last Cornelius Lentulus, a young man of patrician family, perceiving who he was, dismounted, and entreated him to take his horse, and save himself for the commonwealth, which had then more occasion than ever for so good a consul. But nothing could prevail upon him to accept of the offer; and notwithstanding the young man's tears, he obliged him to mount his horse again. Then rising up, and taking him by the hand, "Tell Fabius Maximus," said he, "and, Lentulus, do you yourself be witness, that Paulus Aemilius followed his directions to the last, and did not deviate in the least from the plan agreed upon between them, but was first overcome by Varro, and then by Hannibal." Having despatched Lentulus with this commission, he rushed among the enemy's swords, and was slain.

III. Grammar.

1. Give genitive singular of :— *pes*, *[illegible]*, *[illegible]*, *[illegible]*; accusative plural of :— *flumen*, *alacer*, *[illegible]*, *[illegible]*: gender of :— *lepus*, *[illegible]*, *[illegible]*.

2. Compare :— *[illegible]*, *[illegible]*, *pius*, *[illegible]*, *[illegible]*, *[illegible]*, *mature*, *sequax*.

Give diminutive forms of :— *[illegible]*, *[illegible]*, *[illegible]*, *[illegible]*.

3. Give the 1st pers. future indic. active and the future infin. passive of :— *pendo*, *ludo*, *concedo*, *[illegible]*; perfect infin. active and 1st pers. present subj. passive of :— *[illegible]*, *[illegible]*, *[illegible]*, *[illegible]*.

4. Form nouns indicating masculine agent from :— *[illegible]*, *[illegible]* (= I sow), *sancio*, *suo*; and nouns indicating abstract quality from :— *fallax*, *bonus*, *[illegible]*, *[illegible]*.

IV. Sentences.

1. I hardly saw any one who did not think less of [illegible] others than himself.

2. Suppose he will not, who is there to compel him?

3. Considering that you were his accomplice, you ought to have confessed.

4. Beware of telling anybody what has happened.

5. It is impossible to govern the state without making enemies

---

HIGHER LATIN.

FIRST PAPER—Two Hours.

(All Candidates must satisfy the Examiners in Prose Composition.)

I.

Translate : (*A false message.*)

(*a*) inde nuntii ad Claudium occulti veniebant, si propius copias admovisset, paratos fore qui proderent urbem. et operae pretium esse : non se amicosque tantum, sed etiam milites praeda expleturum

spes cupiditati admota ita occaecavit animum ut nec ex eis qui venerunt quemquam retineret, nec obsides, pignus futuros afore fraudem agendae rei, posceret, nec mitteret exploratum, nec fidem acciperet. die tantum statuta profectus a Lychnido, duodecim milia ab urbe ad quam tendebat posuit castra. quarta inde vigilia signa movit, mille ferme ad praesidium castrorum relictis. incompositi, longo agmine effusi, infrequentes, cum nocturnus error dissiparet, ad urbem pervenerunt. crevit neglegentia postquam neminem armatum in muris viderunt. ceterum ubi primum sub ictu teli fuerunt, duabus simul portis erumpitur, et ad clamorem erumpentium ingens strepitus e muris ortus ululantium mulierum cum crepitu undique aeris, et incondita multitudo turba immixta servili variis vocibus personabat. hic tam multiplex undique obiectus terror effecit ne sustinere primam procellam eruptionis Romani possent.

(*An invocation.*)

(*b*) Phoebe, fave : novus ingreditur tua templa sacerdos :
huc age cum cithara carminibusque veni.
nunc te vocales impellere pollice chordas,
nunc precor ad laudes flectere verba meas.
ipse triumphali devinctus tempora lauro,
dum cumulant aras, ad tua sacra veni.
sed nitidus pulcherque veni ; nunc indue vestem
sepositam ; longas nunc bene pecte comas :
qualem te memorant, Saturno rege fugato,
victori laudes concinuisse Iovi.
tu procul eventura vides ; tibi deditus augur
scit bene quid fati provida cantet avis ;
tuque regis sortes ; per te praesentit haruspex,
lubrica signavit cum deus exta notis ;
te duce Romanos nunquam frustrata Sibylla est,
abdita quae senis fata canit pedibus.

II. SENTENCES.

1. What was I to do? I had no one to consult, and the enemy was in sight.

2. If you are envied, disregard it. If you are hated, forget it. If you are flattered, despise it.

3. He said that he knew no one who would conduct the war better than Claudius.

4. It is certain that, had we obeyed this command, we should not have been defeated.

5. His conduct was so strange that, if I had not known him well, I should have pronounced him mad.

SECOND PAPER—TWO HOURS.

I.

Translate into Latin :

All was over with the Goths. Their line broke and fled, their gallant king was mortally wounded in the pursuit, and darkness

alone saved the army from annihilation. So perished Baduila, the last Gothic king of Italy. There was still, however, fighting to be done. The warriors who had escaped from Taginae proclaimed Tria king, and though most of the Italian towns accepted the death of Baduila as ending the war, a few still held out. Rome, manned by an inadequate garrison, was stormed with ease, and its keys sent to Justinian. King Tria, after ranging up and down the land in a vain attempt to keep up the war, was brought to bay in Campania. His little army, penned up in the hills, made a sudden dash to catch the imperial general unprepared. But Narses was ready for them, and on the banks of the Sarnus the last of the Goths were overwhelmed by numbers, and saw their king slain in the forefront of the battle. So, in autumn, the few remaining Gothic garrisons laid down their arms, gathered together, and disappeared over the passes of the Alps into the northern darkness.

II. GRAMMAR, ETC.

1. Translate the following sentences, and explain the force of the subjunctive in each :

(*a*) inventus es qui haec infanda diceres.
(*b*) laudavit Antonium quod Ciceroni pepercisset.
(*c*) an ego Brutos et Cassium impellerem.

2. Explain and illustrate the force and construction of the prepositions *praeter*, *prae*, *pro*, *propter*.

3. Explain, with examples, the significance of the adjectival terminations *-ax*, *-bundus*, *-osus*.

4. Scan the following lines :

(*a*) in vestro posita est aurea sella foro.
(*b*) fulsere quondam candidi tibi soles.
(*c*) quo Sibyllini monuere versus.
(*d*) inter pulchra satum tecta remugiat.

Arrange the following line as a hexameter :

rex Pylius, si magno Homero quidpiam credis.

LOWER GREEK—THREE HOURS.

(Candidates must satisfy the Examiners both in translation into English and translation into Greek.)

I. Translate :

Cyrus besieges Babylon.

Ἐπεὶ δὲ κατεστρατοπεδεύσαντο, συνεκάλεσεν ὁ Κῦρος τοὺς συμμάχους καὶ ξεν· Ἄνδρες φίλοι, τεθεάμεθα μὲν ἤδη τὴν πόλιν· ἐγὼ δὲ ὅπως μὲν ἂν τείχη οὕτως ἰσχυρὰ καὶ ὑψηλὰ προσμαχόμενος βίᾳ ἕλοι οὐκ ἐνορᾶν μοι κῶ· ὅσῳ δὲ πλείους ἄνθρωποι ἐν τῇ πόλει εἰσίν, ἐπείπερ οὐ μάχονται όντες, τοσούτῳ ἂν θᾶττον λιμῷ αὐτοὺς ἡγοῦμαι ἁλῶναι. εἰ μή τιν' οὖν λον τρόπον ἔχετε λέγειν, τούτῳ πολιορκητέους φημὶ εἶναι τοὺς ἄνδρας.

καὶ ὁ Χρυσάντας εἶπεν. Ὁ δὲ ποταμός, ἔφη, οὗτος οὐ διὰ μέσης τῆς πόλεως ῥεῖ, πλάτος ἔχων πλεῖον ἢ ἐπὶ δύο στάδια; Ναὶ μὰ Δία, ἔφη ὁ Γωβρύας, καὶ βάθος γε ὡς οὐδ' ἂν δύο ἄνδρες ὁ ἕτερος ἐπὶ τοῦ ἑτέρου ἑστηκὼς τοῦ ὕδατος ὑπερέχοιεν· ὥστε τῷ ποταμῷ ἔτι ἰσχυροτέρα ἐστὶν ἡ πόλις ἢ τοῖς τείχεσι· ἅμα μὲν γὰρ πολλὴν εὐπορίαν ὕδατος δώσει τοῖς πολίταις, ἅμα δὲ καὶ σιτίᾳ, ἢν δέῃ, ἐν πλοίοις ῥᾳδίως εἰσάξουσιν.

II. GRAMMAR.

1. Give:

(*a*) Genitive singular and plural of *ποίημα, φλέψ, μάχη, δύναμις.*

(*b*) Dative singular and plural of *θρίξ, βασιλεύς, ταμίας, ἥρως.*

(*c*) Accusative plural and gender of *ἀηδών, φρήν, νῆσος, βάρος.*

2. Give:

(*a*) Perfect infinitive passive of *παύω, ἵστημι, βάλλω, δηλῶ. ἁμαρτάνω, λέγω.*

(*b*) 2nd person singular imperf. indicative active of *δίδωμι, εἰμί, οἶδα, πίπτω, ἐῶ, τολμῶ.*

(*c*) Nominative singular masculine of the aorist participle active of *τρέπω, φεύγω, λαμβάνω.*

(*d*) Aorist infinitive passive of *διδάσκω, πείθω, οἰκοδομῶ.*

3. Parse, giving the 1st singular present indicative of the verb to which each form belongs: *ἔδεισε, ἠπείλησε, ἐνεθυμήθη, ἐμαχέσω, ἐζεύξατο, πέφανται, ἠκηκόει, αἴσθοιτο, εἰπέτην, προσεδοκᾶτε.*

4. Compare: *χαρίεις, κακός, μέγας, μέλας, φανερός.* Give the genitive plural (all genders) of *εἰπών, ταθείς, ὁ αὐτός, τάξας, ἀσφαλής.*

5. Give the Greek for: *I wage war; I conclude a truce; I accuse Socrates; I pardon my enemies; I help my friends.*

III. COMPOSITION.

1. I should be glad to hear whatever you wish to say.
2. When he had said this, he went away.
3. I go to Athens as often as I can.
4. He denied that he had killed his brother.
5. He asked him if it was true.

HIGHER GREEK.

FIRST PAPER—Two Hours.

(*Candidates must satisfy the Examiners both in Composition and in Translation.*

I. Translate:

Οὗτοι γὰρ ἄρχοντες τῶν Ἑλλήνων (οὐ πολὺς χρόνος ἐξ οὗ) καὶ κατὰ γῆν καὶ κατὰ θάλατταν, εἰς τοσαύτην μεταβολὴν ἦλθον, ἐπειδὴ τὴν μάχην ἡττήθησαν τὴν ἐν Λεύκτροις, ὥστ' ἀπεστερήθησαν μὲν τῆς ἐν τοῖς Ἕλλησι

δυναστείας, τοιούτους δ' ἄνδρας ἀπώλεσαν σφῶν αὐτῶν, οἳ προῃροῦντο τεθνάναι μᾶλλον ἢ ζῆν ἡττηθέντες ὧν πρότερον ἐδεσπόζον. Πρὸς δὲ τούτοις ἐπεῖδον Πελοποννησίους ἅπαντας τοὺς πρότερον μεθ' αὑτῶν ἐπὶ τοὺς ἄλλους ἀκολουθοῦντας, τούτους μετὰ Θηβαίων εἰς τὴν αὑτῶν εἰσβαλόντας, πρὸς οὓς ἠναγκάσθησαν διακινδυνεύειν οὐκ ἐν τῇ χώρᾳ περὶ τῶν καρπῶν, ἀλλ' ἐν μέσῃ τῇ πόλει περὶ παίδων καὶ γυναικῶν, τοιοῦτον κίνδυνον ὃν μὴ κατορθώσαντες μὲν εὐθὺς ἀπώλλυντο. Νικήσαντες δ' οὐδὲν μᾶλλον ἀπηλλαγμένοι τῶν κακῶν εἰσιν, ἀλλὰ πολεμοῦνται μὲν ὑπὸ τῶν τὴν χώραν αὐτῶν περιοικούντων, ἀπιστοῦνται δ' ὑφ' ἁπάντων Πελοποννησίων, μισοῦνται δ' ὑπὸ τοῦ πλήθους τῶν Ἑλλήνων, ἄγονται δὲ καὶ φέρονται καὶ τῆς νυκτὸς καὶ τῆς ἡμέρας ὑπὸ τῶν οἰκετῶν τῶν σφετέρων αὐτῶν, οὐδένα δὲ χρόνον διαλείπουσιν ἢ στρατεύοντες ἐπί τινας ἢ μαχόμενοι πρός τινας ἢ βοηθοῦντες τοῖς ἀπολλυμένοις αὐτῶν.

II. Translate *either* of the following passages :

(*a*) ΠΑΙ. ξέναι γυναῖκες, πῶς ἂν εἰδείην σαφῶς
εἰ τοῦ τυράννου δώματ' Αἰγίσθου τάδε;
ΧΟ. τάδ' ἐστίν, ὦ ξέν'. αὐτὸς εἴκασας καλῶς.
ΠΑΙ. ἦ καὶ δάμαρτα τήνδ' ἐπεικάζων κυρῶ
κείνου; πρέπει γὰρ ὡς τύραννος εἰσορᾶν.
ΧΟ. μάλιστα πάντων· ἥδε σοι κείνη πάρα.
ΠΑΙ. ὦ χαῖρ', ἄνασσα. σοὶ φέρων ἥκω λόγους
ἡδεῖς φίλου παρ' ἀνδρὸς Αἰγίσθῳ θ' ὁμοῦ.
ΚΛ. ἐδεξάμην τὸ ῥηθέν. εἰδέναι δέ σου
πρώτιστα χρῄζω τίς σ' ἀπέστειλεν βροτῶν.
ΠΑΙ. Φανοτεὺς ὁ Φωκεύς, πρᾶγμα πορσύνων μέγα.
ΚΛ. τὸ ποῖον, ὦ ξέν'; εἰπέ. παρὰ φίλου γὰρ ὢν
ἀνδρός, σάφ' οἶδα, προσφιλεῖς λέξεις λόγους.
ΠΑΙ. τέθνηκ' Ὀρέστης· ἐν βραχεῖ ξυνθεὶς λέγω.
ΗΛ. οἲ 'γὼ τάλαιν', ὄλωλα τῇδ' ἐν ἡμέρᾳ.

(*b*) πρῶτα μὲν ὤτρυνεν Λυκίων ἡγήτορας ἄνδρας,
πάντῃ ἐποιχόμενος, Σαρπηδόνος ἀμφιμάχεσθαι·
αὐτὰρ ἔπειτα μετὰ Τρῶας κίε μακρὰ βιβάσθων,
Πουλυδάμαντ' ἔπι Πανθοΐδην καὶ Ἀγήνορα δῖον,
βῆ δὲ μετ' Αἰνείαν τε καὶ Ἕκτορα χαλκοκορυστήν.
ἀγχοῦ δ' ἱστάμενος ἔπεα πτερόεντα προσηύδα·
"Ἕκτορ, νῦν δὴ πάγχυ λελασμένος εἰς ἐπικούρων,
οἳ σέθεν εἵνεκα τῆλε φίλων καὶ πατρίδος αἴης
θυμὸν ἀποφθινύθουσι· σὺ δ' οὐκ ἐθέλεις ἐπαμύνειν.
κεῖται Σαρπηδών, Λυκίων ἀγὸς ἀσπιστάων,
ὃς Λυκίην εἴρυτο δίκῃσί τε καὶ σθένεϊ ᾧ·
τὸν δ' ὑπὸ Πατρόκλῳ δάμασ' ἔγχεϊ χάλκεος Ἄρης.
ἀλλά, φίλοι, πάρστητε, νεμεσσήθητε δὲ θυμῷ,
μὴ ἀπὸ τεύχε' ἕλωνται, ἀεικίσσωσι δὲ νεκρὸν
Μυρμιδόνες, Δαναῶν κεχολωμένοι ὅσσοι ὄλοντο,
τοὺς ἐπὶ νηυσὶ θοῇσιν ἐπέφνομεν ἐγχείῃσιν."

SECOND PAPER—Two Hours.

(Candidates must satisfy the Examiners in Prose Composition.)

I. For Greek Prose Composition.

Demosthenes when in exile lived for the most part in Aegina or Troezene, and we are told that whenever he looked across the water towards Attica the tears fell from his eyes. When he left Athens it is said that he lifted up his hands to the citadel and cried: "O Athena, how comes it that thou takest delight in three such monsters as an owl, a dragon, and the people?" He advised the young men who sought instruction from him to keep aloof from affairs of State, for, he said, if two roads had been shown him at the first, the one leading to the Assembly and the other to death, he would have chosen the latter, had he been able to foresee all that was in store for him.

II. Grammar.

1. Give the future, aorist and perfect (1st sing. ind. with active meaning) of ἀπόλλυμι, φθάνω, λαγχάνω, ἐνοχλῶ, ζῶ, δάκνω.

2. Distinguish αἰσχύνεσθαι δρῶν, αἰσχύνεσθαι δρᾶν; ἀποδιδόναι, ἀποδίδοσθαι; πολεμεῖν, πολεμοῦν; δικάζειν, δικάζεσθαι.

3. Translate with a note on the syntax:

(*a*) ποῦ γνώμης ποτ᾽ εἶ;

(*b*) Κύρου ἐδέοντο ὡς προθυμοτάτου γενέσθαι.

(*c*) ἃ μὴ οἶδα οὐδὲ οἴομαι εἰδέναι.

(*d*) πυνθάνεται εἰ οὐ τοῦτο ἑκάστου εἴη ἔργον.

(*e*) ἄξιον ἦν παρεῖναι ἵν᾽ ἤκουσας ἀνδρῶν οἳ σοφώτατοί εἰσι,

4. Scan, marking caesuras:

(*a*) φονέα νομίζων χεῖρα, τοῦ νόμου δ᾽ ὕπο
θνῄσκειν γε τῆς θεοῦ τάδε δίκαι᾽ ἡγουμένης.

Or,

(*b*) Πηλεΐδεω Ἀχιλῆος ἃ οἱ θεοὶ Οὐρανίωνες
πατρὶ φίλῳ ἔπορον· ὁ δ᾽ ἄρα ᾧ παιδὶ ὄπασσε.

5. Make into Greek:

(*a*) You had better leave the camp before the king comes.

(*b*) Would that the war were over and our soldiers returned to their homes!

(*c*) Had it not been for Cimon we should have lost this opportunity.

(*d*) The Athenians were too clever not to see the danger.

(*e*) They were ordered to attack the enemy wherever they found them.

LOWER MATHEMATICS—Three Hours.

A candidate may obtain FULL *marks by doing about two-thirds of this paper; but the Examiners may reject a candidate who shows exceptional weakness in any of the sections A, B, C.*

Marks will not be awarded to answers where the work is not shown.

A.

1. Resolve into prime factors the numbers 1925, 1960, 3500. Find their G.C.M. and L.C.M.

2. Find the value of $\frac{3 \cdot 187 \times \cdot 002831}{42 \cdot 58 \times \cdot 00008762}$ correct to 5 figures.

3. A man buys butter at 10d. per lb. and retails it at 1s. 2d. per lb. He loses, however, 5 per cent. of the butter through overweight, etc. What is his gain per cent. on his outlay?

4. Extract the square root of 17 correct to 6 places of decimals.

5. Two trains each 150 yards long are approaching each other, one going at 30, and the other at 35 miles per hour. If the distance between their engines is 5 miles at 12 o'clock, determine the time when they have just completely passed each other.

B.

6. Multiply $x^4 + 3x^2 - 3x - 1$ by $x^2 - x + 1$; and find the remainder when this product is divided by $x + 1$.

7. Reduce to its simplest form:

$$\frac{a+b}{(a-c)(b-c)} + \frac{b+c}{(b-a)(c-a)} + \frac{c+a}{(c-b)(a-b)}.$$

Express as a single fraction:

$$\frac{x-1}{x+1} - \frac{2x-1}{2x+1} + \frac{1}{x}.$$

8. Solve the equations:

$$\text{(i) } 3x + 2y + 1 = x - y - 2 = 4x + 3y - 5.$$

$$\text{(ii) } \frac{1}{x+1} + \frac{1}{x-1} = \frac{2}{2x-1}.$$

9. Resolve into factors $6 + x - x^2$; and find the L.C.M. of the functions $(x^2 + 1)^2 - x^2$, $x^3 + 1$, and $x^3 - 1$.

10. A's age is double B's age. Ten years ago the sum of their ages was 40 years. How old was B when A's age was 6 times that of B?

C.

11. Prove that, if two equiangular triangles have equal bases, they are equal in all respects.

Two isosceles triangles have a common base. Prove that the line joining their vertices is perpendicular to the common base.

12. Prove that the opposite angles and sides of a parallelogram are equal.

$ABCD$ is a parallelogram. O is any point inside it. Show that the area of the triangle DAC is equal to the sum of the areas of the triangles OAB and OAD.

13. Prove that the line joining the centres of two circles which touch one another passes through the point of contact.

A circle is touched internally by another circle of half its radius. Prove that every chord of the larger circle which passes through the point of contact is bisected by the smaller circle.

14. Prove that two opposite angles of a quadrilateral inscribed in a circle together make two right angles.

If equilateral triangles be described outwards on the sides of a given triangle show that their circumcircles pass through a common point.

15. Define a locus.

Find a point equidistant from two given points, and also equidistant from two given lines.

How many solutions has this problem in general?

INTERMEDIATE AND HIGHER MATHEMATICS.

FIRST PAPER—Two Hours.

A Candidate may obtain FULL *marks by doing correctly about two-thirds of this Paper; but the Examiners may reject a Candidate who shows exceptional weakness in either of the sections A, B.*

The pass mark for Intermediate Candidates is fixed with reference to the total number of marks assigned to questions which fall under the syllabus of the Intermediate Standard; but such Candidates will receive credit for any question they may answer.

Marks will not be awarded to answers where the work is not shown.

A.

1. Prove that if a straight line meets two parallel straight lines it makes (1) the alternate angles equal, (2) the sum of the two interior angles on the same side of it equal to two right angles.

BD, the bisector of the angle B of the triangle ABC, meets AC in D, and the perpendicular to BD through B meets the line through D parallel to BC in E. Prove that DE is bisected by AB.

2. (*a*) Show how to describe a square equal in area to a given rectangle.

(*b*) Show how to describe a rectangle of given perimeter equal in area to a given square. State what condition must be satisfied in order that the problem may admit of solution.

3. (*a*) Prove that the angle in a segment of a circle is equal to, less than, or greater than a right angle according as the segment is equal to, greater than, or less than a semicircle.

(*b*) P is a point outside a circle whose centre is C. On CP as diameter a circle is described cutting the given circle in O, and through O a straight line is drawn cutting the given circle in Q and the other in R. Prove that the angle OCQ is double the angle PCR.

4. Prove that if from any point without a circle lines are drawn, one of which cuts the circle and the other meets it, and if the rectangle contained by the segments of the former line is equal to the square on the latter, the latter touches the circle.

TA and TB are tangents to a circle whose centre is C, D any point on the circumference of the circle. If TC meets AB in E, prove that CD touches the circumcircle of the triangle TED.

5. Show how to inscribe a circle in a given triangle.

ABC is a triangle, O its orthocentre, and D, E, F are the feet of the perpendiculars from A, B, C on the sides BC, CA, AB respectively. Prove that O is the incentre of the triangle DEF.

6. (*a*) ABC and DEF are triangles having the angle B equal to the angle E and AB:BC = DE:EF. Prove that the triangles are equiangular.

(*b*) ABCD is a cyclic quadrilateral such that the sum of the angles A and D is less than two right angles. If through E, the intersection of AC and BD, EF be drawn parallel to AB to meet CD produced in F, prove that $FE^2 = FD . FC$.

7. Prove that the rectangle contained by the diagonals of a cyclic quadrilateral is equal to the sum of the rectangles contained by the opposite sides of the quadrilateral.

Prove that the distance of any point on the circumference of a circle from one angular point of an equilateral triangle inscribed in the circle is equal to the sum of the distances of the point from the other two angular points.

8. (*a*) AB is a straight line perpendicular to a plane X, Y a plane containing AB. Prove that the plane Y is perpendicular to the plane X.

(*b*) Prove that equal straight lines drawn to a plane from a point without it are equally inclined to the plane.

B.

9. Draw a circle of diameter one inch. Draw a diameter AB and the tangent to the circle at B, divide either of the semicircumferences between A and B into 8 equal parts, join A to the points of

section, and produce the joining lines to meet the tangent at B. Measure the distance of the points so found from B, and use the results obtained for drawing the graph of tan A from $A = 0°$ to $A = 90°$.

10. Prove that the area of a triangle ABC is $\frac{1}{2}a^2 \sin B \sin C/\sin A$

Use this expression to find the area of the triangle when $a = 106{\cdot}5$ yds., $A = 56° \ 37'$, $B = 75° \ 46'$.

11. A person walking along a straight, level road running due east and west observes that two objects P and Q are in a line bearing north-west, and after walking a further distance d he observes that P bears due north and that the direction of Q makes an angle A with the direction in which he is walking. Prove that the distance PQ is $d \cos A/\sin (A - 45°)$.

Find PQ when $d = 1372$ yds., and the angle $A = 56° \ 31'$.

SECOND PAPER—Two Hours.

A candidate may obtain FULL *marks by doing correctly about two-thirds of this paper; but the Examiners may reject a Candidate who shows exceptional weakness in either of the sections B, C.*

The pass mark for Intermediate Candidates is fixed with reference to the total number of marks assigned to questions which fall under the syllabus of the Intermediate Standard; but such Candidates will receive credit for any question they may answer.

Marks will not be awarded to answers where the work is not shown.

One at least of the two questions on Arithmetic must be done by all Candidates.

A.

1. Find to the nearest penny the value of 3765 tons 17 cwt. 3 qrs. 24 lb. of wheat at £6. 17s. 6d. per ton.

2. One person invests a certain sum of money in £100 railway debentures bearing interest at 4 per cent. when the price is £112. 10s., and another invests an equal sum in bank shares when the price is £11. 17s. 6d. per share. If the bank pays dividend at the rate of 10s. 6d. per share, and if the annual income received by the second person from his investment exceeds by £37 the annual income received by the first person from his, find what sum each person invests.

B.

3. (*a*) When are two integral functions of a variable x said to be prime to each other? Write down two such functions each of the second degree.

(*b*) The G.C.M. of two quantities a and b is x, and the L.C.M. of the two quantities is y. If $x - y = ma - b/m$, prove that $x^3 - y^3 = m^3a^3 - b^3/m^3$.

4. (*a*) Determine the constants a, b, c, d, e, so as to make

$$x^4 - 1 = a + b(x - 1) + c(x - 1)^2 + d(x - 1)^3 + e(x - 1)^4$$

an identity.

(*b*) Determine l and m so that $x^4 - 4x^3 + lx^2 - mx + 12$ may be exactly divisible by $x - 2$ and $x - 3$.

5. Prove that $2a+b+c$ is a factor of the function

$$8(a+b+c)^3-(b+c)^3-(c+a)^3-(a+b)^3.$$

Resolve the function into its simple factors.

6. (*a*) If $x^2=bc+ca+ab$, prove that $(x^2+a^2)(x^2+b^2)(x^2+c^2)$ is a perfect square.

(*b*) Extract the square root of

$$x(x-a)(x^2-2ax-2a^2)+\frac{a^2}{36}(33x^2+16a^2).$$

7. Solve the equation $ax^2+bx+c=0$, and discuss the nature of the roots for different values of a, b, c. If r and s are the roots of the equation, prove that the equation whose roots are $r+s$, $\frac{s^2}{r}+\frac{r^2}{s}$ is $a^3cx^2+ab(b^2-2ac)x+b^2(b^2-3ac)=0$.

8. (*a*) Solve the equations

$$b^2x+a^2y+(a+b)(a-b)^2=0,$$
$$1/x-1/y-1/(a-b)=0.$$

(*b*) Solve graphically or otherwise

$$x^2+y^2=25,$$
$$3x+y=5.$$

9. The main road from a place A to a place B distant 10½ miles is partly downhill and partly level: and a person finds that while he walks from A to B in three hours he takes 4½ hours to walk from B to A. If he walks a mile an hour faster downhill and a mile an hour slower uphill than he walks on the level, find at what rate he walks on the level.

10. (*a*) If $y=(1+x)/(1-x)$, prove that

$$(x-1/x)(y-1/y)=4(xy+1)/(x-y).$$

(*b*) If $a(cz-by)$, $b(ax-cz)$, $c(by-ax)$ are equal but not zero, prove that $x+y+z=0$ and $1/a+1/b+1/c=0$.

C

11. Plot in relation to the same axis and origin the values of $\tan x$ and $2\sin x$ for the values 0°, 12° 30′, 25°, 37° 30′, 50°, 62° 30′, 75° of x, draw the graphs of $\tan x$ and $2\sin x$, and find from them the values of x for which $\tan x=2\sin x$. Give the general solution of the equation $\tan x=2\sin x$.

12. Prove that $\dfrac{\cos A+\sin A}{\cos A-\sin A}=\tan(A+45^\circ)$.

13. Prove for a triangle ABC in which the angle B is obtuse the relation $\sin B/b=\sin C/c$, and deduce the relation

$$\tan\tfrac{1}{2}(B-C)=\frac{b-c}{b+c}\cot\frac{A}{2}.$$

If $b=27{\cdot}3$ yds., $c=15{\cdot}8$ yds., $A=48^\circ\,36'$, find B and C.

FRENCH.

FIRST PAPER—Two Hours.

Translate into French :

1. The French soldier whom we have referred to has killed so many lions that he well deserves his name of the 'Lion-killer.' On the first evening of his arrival at the camp in the French colony of Algeria, he heard sad complaints of a lion that had been devouring the flocks and herds. After listening to the account of all that this dreadful beast had done and was doing, the brave little Frenchman amazed them by saying very quietly that he would go and kill him, if they would find him a guide. They all made fun of him on hearing this, telling him if the lion did not eat him, it would only be because he was so small. But this did not turn the brave hunter from his purpose ; so at last they agreed to help him. They dug a large hole in the ground, and covered it with trees. On these trees they placed large stones, and then covered the whole with damp earth. In this hole the Lion-killer was to stand and watch for the lion, who would most likely, as his friends told him, drag him out of it and devour him. Night after night he spent there, but did not find it a very pleasant post, and the lion never came near.

2. French Essay (about one page and a half long). The coming of Spring.

Or,

Which branch of French literature, poetry, novels, or plays, is your preferred reading? State the grounds for your preference.

SECOND PAPER—Two Hours.

I.

1. Translate into English :

(*a*) Il est des moments dans la vie où l'on souhaite avec ardeur les fortes commotions pour se tirer des petites douleurs ; des époques où l'âme, semblable au lion de la fable et fatiguée des atteintes continuelles de l'insecte, souhaite un plus fort ennemi, et appelle les dangers de toute la puissance de son désir. Cinq-Mars se trouvait dans cette disposition d'esprit. Las de retourner sans cesse en lui-même les combinaisons d'événements qu'il souhaite et celles qu'il avait à redouter ; las d'appliquer à des probabilités tout ce que sa tête avait de force pour les calculs, d'appeler à son secours tout ce que son éducation lui avait fait apprendre de la vie des hommes illustres pour le rapprocher de sa situation présente : accablé de ses regrets, de ses songes, des prédictions, des chimères, des craintes et de tout ce monde imaginaire dans lequel il avait vécu pendant son voyage solitaire, il respira en se trouvant jeté dans un monde réel presque aussi bruyant, et le sentiment de deux dangers véritables rendit à son sang la circulation, et la jeunesse à tout son être.

(*b*) Travaillez à loisir, quelque ordre qui vous presse,
Et ne vous piquez point d'une folle vitesse :
Un style si rapide, et qui court en rimant,
Marque moins trop d'esprit, que peu de jugement.
J'aime mieux un ruisseau qui, sur la molle arene,
Dans un pré plein de fleurs lentement se promene,
Qu'un torrent deborde qui d'un cours orageux,
Roule, plein de gravier, sur un terrain fangeux.
Hâtez vous lentement ; et sans perdre courage,
Vingt fois sur le metier remettez votre ouvrage ;
Polissez le sans cesse et le repolissez ;
Ajoutez quelquefois, et souvent effacez.

II. Grammar, Philology, and Literature

(*Answer any* THREE *of the following questions.*)

1. Translate into French :

(*a*) You will think of it when I am gone.

(*b*) I know the man whose daughter he has married.

(*c*) They have remembered their promise, and they have kept it.

(*d*) Whatever excuses you may make, they will be useless.

(*e*) I was afraid he would read my letter before he had received yours.

2. Give the English for the following sentences : (*a*) Vous vous y connaissez mieux que moi, aussi m'en remettrai je à vous. (*b*) Je ne suis pour rien dans cette affaire, prenez vous en à lui. (*c*) Je lui ai entendu dire qu'il a refuse. (*d*) Je ne m'y entends pas, parlez en à votre professeur. (*e*) J'entends agir comme il me plaira. Explain the meaning of '*y*' and '*en*' in (*a*), of '*prendre*' in (*b*), and connect the various meanings of '*entendre*' in (*c*), (*d*), (*e*).

3. Give the French for the following phrases : *for instance, one too many, never again, long ago, into the bargain, by night, by moonlight, better and better, never mind, twice a day*, and construct with them short but complete sentences.

4. What is meant in French philology by inchoative verbs, living and dead, strong and weak conjugations? As illustrations use the verbs, *fusiller, embellir, devoir, perdre*.

5. *Answer* ONE *of the following in English. The answer should not be more than one page in length.*

(*a*) Describe the part of Maître Jacques in *l'Avare*.

(*b*) Give your impression of the story of *Les Vieux* as to matter and style.

(*c*) Give a sketch of Miss Lydia Nevil's character and of the part she plays in *Colomba*.

(*d*) Which character in your opinion is the most attractive in *Mademoiselle de la Seigliere*? Give your reasons.

GERMAN.

FIRST PAPER—Two Hours.

Candidates may use either English or German Script.

1. Translate into German :

(*a*) A Frenchman newly arrived in London left his hotel in the morning to see the town. In order to find his way back, he copied on a card the name printed on the wall at the corner of the street. After strolling about all day he called a cab and showed the cabman his card. But the latter only laughed in his face. At this the Frenchman grew angry, and called to the passers-by. A crowd soon got together, and every one, as soon as they read the card, burst into a loud laugh. Up came a policeman, and now the Frenchman thought he was sure of help. He showed him the card and the policeman roared with laughter. It was evident that they could not help it. At last a gentleman who could speak his language appeared, and all was explained. The address which he had copied so carefully at the corner of the street was : 'Stick no bills' (Keine Zettel aufkleben).

(*b*) A country clergyman noticed that while he was preaching one of his hearers always went to sleep ; but when a stranger was invited to preach, this man always managed to keep awake. The next time the clergyman visited him, he asked how this was, and the man replied : 'Well, sir, when you preach, I am sure that everything is right ; but I cannot trust a stranger.'

2. Write a German essay of about 200 words on either of the following subjects :

(*a*) Vorteile und Nachteile der inſularen Lage Englands.

(*b*) Die Schrecken eines Erdbebens.

SECOND PAPER—Two Hours.

(*Candidates may use either English or German Script.*)

I.

Translate into English :

(*a*) Die „Mama" war eine Müllerstochter aus dem Dorfe Nebelſingen, das eine halbe Stunde unterhalb Krug im grünen Tal gelegen iſt. Sie liebte als eine leicht bewegliche Frau von Bildung und Geiſt die geſellſchaftliche Unterhaltung, ſie hatte allerhand künſtleriſche Neigungen, und da ſie in dem halb bäuerlichen, halb induſtriellen Dorfe Krug dafür wenig Verſtändnis fand, zog ſich ihr Verkehr hauptſächlich in die nahe Stadt, von wo ſie auch häufig Beſuche empfing. Im Dorfe galt die Frau mit den angenehmen, faſt durchgeiſtigten Zügen, mit den lebhaften, ſprechenden Augen etwas als ſtolze

Dame. Sie hielt mehr auf franzöſiſche als deutſche Bücher und liebte es, wie es im Zuge der Zeit lag und als Merkmal überlegener Bildung galt, franzöſiſche Brocken in die deutſche Unterhaltung zu miſchen, was Joggeli deswegen kränkte, weil er die fremden Ausdrücke nicht begriff. Da er oft drollige Einfälle zum beſten gab, hatte ſie ſtets ein großes Wohlwollen für ihn übrig, und oft lud ſie ihn ein, eines ſeiner auswendig gelernten Lieder herzuſagen.

(*b*) Die Mutter.

Du warſt allein,
Ich ſah durch's Schlüſſelloch
Den matten Schein
Der ſpäten Lampe noch.
Was ſtand ich nur und trat nicht ein?
Und brannte doch,
Und war mir doch es müßte ſein,
Daß ich noch einmal deine Stirne ſtrich
Und zärtlich flüſterte: Wie lieb' ich dich?
Die alte böſe Scheu,
Dir ganz mein Herz zu zeigen,
Sie quält mich immer neu.
Nun lieg' ich durch die lange Nacht
Und horche in das Schweigen –
Ob wohl ein weißes Haupt noch wacht?
Und einmal hab' ich leis gelacht:
Was ſorgſt du noch,
Sie weiß es doch,
Sie hat gar feine Ohren,
Ihr geht von deines Herzens Schlag,
Obwohl die Lippe ſchweigen mag,
Auch nicht ein leiſer Ton verloren.

G. FALKE.

II. GRAMMAR, PHILOLOGY, AND LITERATURE.

Answer any *three* of the following questions:

1. Translate into idiomatic German:

I saw her running to the door.

He complained of your not writing to him sooner.

We told him to be quick.

He was expected to arrive before his sister left.

I should not like him to consider the matter without having read my letter.

2. Form German sentences (with English translation) illustrating the use of the following adverbs: erſt, doch, freilich, eben, überhaupt.

3. Give the idiomatic German for any *ten* of the following phrases:—by chance, by mistake, by return; for God's sake, for love, for good; at random, at any rate, at a loss; one more question, in confidence, in turn, in addition, beyond doubt, not even probable.

4. Form *three* German nouns (with English meanings) from each of the following words:—ſprechen, ſchließen, kennen, graben, biegen.

5. Answer *any one* of the following questions in English (the answer not to exceed about 200 words):

(*a*) Discuss the character of Maria Stuart as represented by Schiller.

(*b*) Which of Schiller's ballads do you like best? Give your reasons.

(*c*) Justify the title of Wildenbruch's „Das edle Blut."

(*d*) Point out the chief elements of comedy in Freytag's „Journaliſten."

ITALIAN.

FIRST PAPER—Two Hours.

A.

Translate:

1. So he went into the forest and proceeded onward, turning his face to the south. Then as he went, the trees grew thicker and thicker, and taller and taller, till they shut out the light of the sun. And at last there came a day when he looked before him and saw only a darkness like that of the mouth of death: and he looked behind him and he saw the light of evening glimmering a long way off, as if afraid of keeping him company.

2. The second day after my father's death, although I, Lorenzo, was very young, in fact only in my twenty-first year, the leading men of the city and of the ruling party came to our house to express their sorrow for our misfortune, and to persuade me to take upon myself the charge of the government of the city, as my grandfather and father had already done. This proposal being contrary to the instincts of my age, and entailing great labour and danger, I accepted against my will and only for the sake of protecting my friends and our own fortunes, for in Florence one can ill live in the possession of wealth without control of the government.

3.
I love snow, and all the forms
  of the radiant frost:
I love waves, and winds and storms,
  every thing almost
which is Nature's and may be
unstained by man's misery.

B.

1. Basta guardare a come ha agito per convincersi che gatta ci cova.

2. Delle frutta quest' anno ce ne sarebbe state magari, ma l' ha prese la siccità.

3. Che si vada di qui o di là mi torna lo stesso.

4. È meglio di non citare le persone se si può.

5. Anche se piove è acqua che non bagna. 10 marks

SECOND PAPER—Two Hours

A.

Translate :

1. Quando si tratta di negri il popolo non si contenta più d' essere giudice : vuole anche essere esecutore. È questione di zelo.

Ordinariamente il lynciaggio avviene col massimo ordine. *The order was perfect* dicono i giornali riportandone la notizia. È sbrigato come una faccenda ordinaria : ha un' aria onesta di cosa abituale. Si svolge con rapidità, nel cuore della notte. All' alba la gente mattiniera scorge un cadavere penzolare da un albero. Il *Grand Jury* e decreta invariabilmente che i colpevoli sono ignoti.

La fantasia popolare porta sovente delle varianti alle esecuzioni. Non è raro che al capestro si sostituisca il rogo. Pochi giorni or sono a Greenville, nel Texas, un negro fu bruciato vivo. Più di duecento donne assistevano al supplizio. La catasta di legname era così alta che il fuoco acceso alle otto del mattino ardeva ancora a gran fiamma a mezzogiorno. Ma il negro non urlò che sei minuti—dice la cronaca. (L. Barzini.)

2. È mattino ; l' aria gelida
ha gli odor fini dell' erba ;
pianamente fruscian gli alberi
da la fronda alta e superba.
In un canto il cielo è roseo
per l' occulto sol nascente,
qua più pallido, ceruleo,
cupo azzurro all' occidente.

(M. Grandi.)

B. Grammatica

Translate as literally as possible :

1. To say : *I don't know* is better than to say : *You don't know*

2. *La mi* dia una sedia un *po' meglio di* questa *qui* che è Zoppa.

3. Be a good boy.

4. Lepri di questa fatta non coi veltri, ma coi carri s' hanno da rendere.

Explain the grammatical function of words in italics in 2. and the eaning of sentence 4.

5. Decline fully the personal pronouns in their full and shortened forms.

C. LETTERATURA E FILOLOGIA.

(ONE *question only needs to be answered.*)

Dire i nomi di sei dei principali poeti italiani e il titolo dei loro scritti più importanti.

Riepilogare in breve la storia del periodo di letteratura italiana che va da Lorenzo il Magnifico a Michelangelo.

Chi era il Parini? In che consiste la sua satira? A quali autori inglesi si collega?

Translate:

Non era pianto *ma'* che di sospiri.

Sketch the history of *ma'*.

Give the Latin origin of: cavallo, bocca, orso, bove, and give all the singular and plural forms of this last word.

SPANISH.

FIRST PAPER—ONE HOUR AND A HALF.

I. Translate into Spanish:

Although genius always commands admiration, character most secures respect. The former is more the product of brain-power, the latter of heart-power; and in the long run it is the heart that rules in life. Men of genius stand to society in the relation of its intellect as men of character of its conscience; and while the former are admired, the latter are followed. Great men are always exceptional men; and greatness itself is but comparative. Indeed, the range of most men in life is so limited, that very few have the opportunity of being great. But each man can act his part honestly, and to the best of his ability. He can use his gifts and not abuse them. He can strive to make the best of life. He can be true, just, honest and faithful, even in small things. In a word, he can do his duty in that sphere in which Providence has placed him.

II. Translate the following idioms into Spanish:

1. New brooms sweep clean.
2. No pains, no gains.
3. No sooner said than done.
4. Custom makes laws.
5. Of two evils choose the least.
6. He hast lost his wits.

III. Write the preterite, present subjunctive, and past participle of the following verbs: decir, escribir, hacer and saber.

SECOND PAPER—Two Hours.

I. Translate into English :

Llevome a casa cuando yo era nino, y se encargo de mi educacion. Parecile desde luego tan despejado que resolvio cultivar mi talento. Comprome una cartilla, y quiso el mismo ser mi maestro de leer. Tambien hubiera querido enseñarme por el mismo la lengua latina porque ese dinero ahorraria ; pero el pobre Gil Perez se vio precisado a ponerme bajo la ferula de un preceptor, y me envio al doctor Godinez, que pasaba por el mas habil pedante que habia en Oviedo. Aproveché tanto en esta escuela que al cabo de cinco ó seis anos entendia un poco los autores Griegos, y suficientemente los poetas latinos. Apliquème despues a la logica, que me enseñó a discurrir y argumentar sin termino. Gustabanme mucho las disputas, y detenia á los que encontraba, conocidos o no conocidos, para proponerles cuestiones ó argumentos. Topabame á veces con algunos manteistas que no apetecian otra cosa, y entonces era el oirnos disputar. Que voces! que patadas! que gestos! que contorsiones! que espumarajos en las bocas! Mas pareciamos energumenos que filosofos.

Give the English of the following Spanish idioms :—

II. Vista a la inglesa.

1. Se despidio a francesa.
2. Su hijo esta hecho un abril.
3. Se me abrio francamente.
4. Fui la mitad del camino a pie y la otra mitad a caballo.
5. La esperiencia le ha hecho abrir los ojos.

GAELIC.

FIRST PAPER—Two Hours.

1. Translate into idiomatic Gaelic :—

On the next day the young companions were come in sight of his father's house. "Now," said she, "my father is drowned, and he won't trouble us any more ; but before we go further," says she, "go thou to thy father's house, and tell that thou hast the like of me ; but this is thy lot, let neither man nor creature kiss thee, for if thou dost thou wilt not remember that thou hast ever seen me." Every one he met was giving him welcome and luck, and he charged his father and mother not to kiss him ; but as mishap was to be, an old grey hound was in and she knew him, and jumped up to his mouth, and after that he did not remember the giant's daughter.

She was sitting at the well's side as he left her, but the King's son was not coming. In the mouth of night she climbed up into a tree of oak that was beside the well, and she lay in the fork of the tree all that night. A shoemaker had a house near the well, and about midday on the morrow, the shoemaker asked his wife to go for a drink for him out of the well. When the shoemaker's wife reached the well, and when she saw the shadow of her that was in the tree, thinking of it that it was her own shadow—and she never thought till now that she was so handsome—she gave a cast to the dish that was in her hand, and it was broken on the ground, and she took herself to the house without vessel or water.

2. Translate into English :—

Mu 'n àm 's an robh Gilleasbuig a lathair thainig ministir eadar a bhi Gallda is Gàidhealach, ris an abradh iad "Maighstir Sutar," do Sgir Dhiùirinnis. 'S e làn-sgoilear a bha 'n Sutar, foghlumaichte ann an iomadh canain, ach duine aig nach robh ach fior dhroch Ghàidhlig. Agus na bu mhiosa na sin, tha e coltach gu 'n robh Sutar tuilleadh is deidheil air a bhi 'n Comunn Mhic-na-bracha; agus ged a bha Gilleasbuig mar a bha e, bha e faicinn nach robh caithe-beatha Shutair a' co-fhreagradh ris an dreuchd chudthromach a ghabh e os laimh. Ach ciod air bith aobhar bho 'n do thachair e, fhuair Gilleasbuig làn cheannas air Sutar. Bha eagal anma aig Sutar roimh Ghilleasbuig. Cha robh ni dh' iarradh e air Sutar nach faigheadh e. Ach feumaidh sinn aideachadh nach robh Gilleasbuig coir ach anabarrach mi-thaingeil ri aghaidh gach caoimhneis agus deagh-ghean a bha Sutar a' nochdadh dha. Chàineadh e Sutar gu bhrògan, agus 'nuair a bhiodh e sgith dheth air gach dòigh eile dh' éireadh e air le bardachd. Ann an aon de na rannan sin tha Gilleasbuig a' toirt duinn cùnntas air ùrnuigh Shutair :—

"'Nuair a theid thu do 'n chubaid
Ni thu ùrnuigh bhios gleusda,
Bidh cuid di 'na Gàidhlig,
Is pairt di 'na Beurla;
Bidh cuid di 'na h-Eabhra,
'Na Fraingis, 's 'na Greigis,
'S a' chuid nach tuig càch dhi
Bheir e gàir air Fear Gheusdo."

SECOND PAPER—Two Hours.

1. Decline (1) without the article (2) with the article :—
cu dubh; craobh ard; làmh bhriste.

2. Give the comparison of the following adjectives :—
duilich, geàrr, math, olc, teth.

3. Give the verbal noun corresponding with
caith, fag, geall, meal, suidh, tog, tuit.

4. Give a list of the relative pronouns and illustrate their uses by simple sentences in Gaelic.

Translate *Am fearr a bhuail mi.*

5. Translate into idiomatic Gaelic :—

he pretended, I know, confess, I regret, rest yourself, it is my intention, come hither, I am standing.

6. Write in idiomatic Gaelic a short story or tale.

HEBREW.

FIRST PAPER—Two Hours.

1. Point and translate:

ויאמר אלֹהים לישראל במראֹת הלילה ויאמר יעקב
יעקב ויאמר הנני: ויאמר אנכי האל אלֹהי אביך אל־
תירא מרדה מצרימה כי־לגוי גדול אשימך שם: אנכי
ארד עמך מצרימה ואנכי אעלך גם־עלֹה ויוסף ישית ידו
על־עיניך: ויקם יעקב מבאר שבע וישאו בני־ישראל
את־יעקב אביהם ואת־טפם ואת־נשיהם בעגלֹות אשר־
שלח פרעה לשאת אתו: ויקחו את־מקניהם ואת־רכושם
אשר רכשו בארץ כנען ויבאו מצרימה יעקב וכל־זרעו
אתו:

2. Translate into Hebrew:

(1) The King of the great city.

(2) The land in which I dwell.

(3) Thou hast harkened unto the voice of thy wife, and hast eaten of the tree, of which I commanded thee, saying, Thou shalt not eat of it.

(4) He shall become a great nation, and all the nations of the earth shall be blessed in him.

(5) He will command his children, and they shall keep the way of the Lord, to do justice and judgment.

SECOND PAPER—Two Hours.

1. Translate:

וַיאמר אֱלֹהִים זֹאת אוֹת־הַבְּרִית אֲשֶׁר־אֲנִי נֹתֵן בֵּינִי
וּבֵינֵיכֶם וּבֵין כָּל־נֶפֶשׁ חַיָּה אֲשֶׁר אִתְּכֶם לְדֹרֹת עוֹלָם:
אֶת־קַשְׁתִּי נָתַתִּי בֶּעָנָן וְהָיְתָה לְאוֹת בְּרִית בֵּינִי וּבֵין הָאָרֶץ:
וְהָיָה בְּעַנְנִי עָנָן עַל־הָאָרֶץ וְנִרְאֲתָה הַקֶּשֶׁת בֶּעָנָן: וְזָכַרְתִּי

אֶת־בְּרִיתִי אֲשֶׁר בֵּינִי וּבֵינֵיכֶם וּבֵין כָּל־נֶפֶשׁ חַיָּה בְּכָל־בָּשָׂר
וְלֹא־יִהְיֶה עוֹד הַמַּיִם לְמַבּוּל לְשַׁחֵת כָּל־בָּשָׂר׃ וְהָיְתָה
הַקֶּשֶׁת בֶּעָנָן וּרְאִיתִיהָ לִזְכֹּר בְּרִית עוֹלָם בֵּין אֱלֹהִים וּבֵי
כָּל־נֶפֶשׁ חַיָּה בְּכָל־בָּשָׂר אֲשֶׁר עַל־הָאָרֶץ׃

Parse נתתי (v. 13), והיתה (v. 13), בעננִי (v. 14), ונראתה (v. 14) וזכרתי (v. 15), לשחת (v. 15).

2. (1) Write נֵדֶר and לְ with sing. and plur. suffixes.

(2) Write the imperf. Qal, Niphal and Hiphil of קום and סבב.

(3) How is the Article pointed before gutturals? Give examples.

ARABIC.

FIRST PAPER—Two Hours.

I. Point and translate :

1. Ibn al-Tiktaka, *Al-Fakhri* (Derenbourg's edition), p. 342, ll. 5—14.

2. Gospel of Matthew, v. 43—48.

II. Translate without pointing :

Noeldeke's *Delectus Veterum Carminum Arabicorum*, p. 63, ll. 4, 5.
Majani 'l-Adab, Vol. I., p. 26, ll. 14, 18 ; p. 27, ll. 13, 15 ; p. 28, ll. 2, 11.

III. Translate literally and explain the idiomatic expressions indicated in the above passages.

SECOND PAPER—Two Hours.

1. Translate into Arabic with the vowel points :

Let us reflect in another way, and we shall see that there is great reason to hope that death is a good ; for one of two things—either death is a state of nothingness and utter unconsciousness, or, as men say, there is a change and migration of the soul from this world to another. Now if you suppose that there is no consciousness, but a sleep like the sleep of him who is undisturbed by dreams, death will be an unspeakable gain. For if a person were to select the night in which his sleep was undisturbed by dreams, and were to compare this with the other days and nights of his life, and then were to tell us how many days and nights he had passed in the course of his life better and more pleasantly than this one, I think that no man, I will not say a private man, but not even the great king, will find many such days or nights, when compared with the others. Now, if death is like this, I say that to die is gain; for eternity is then only a single night. But if death is the journey to another place, and there, as men say, all the dead are, what good, O my friends and judges, can be greater than this?

2. (*a*) Give the different plurals (mentioning the differences in meaning or usage in each case, if any) of the Arabic for: brother, soul, son, month, youth, house, verse, prophet, unbeliever.

(*b*) Mention all the uses of the apocopated verb (*almagzūm*) with an example of each.

(*c*) Give examples of the different forms of conditional sentences (*shart wa gawab*).

3. Write either in Arabic or English a short statement of the chief differences between *either* ancient and modern Arabic *or* Arabic and Hebrew.

PERSIAN.

FIRST PAPER—Two Hours.

1. Translate into Persian:

In the reign of this Caliph a poor porter named Hindbad lived at Bagdad. One very hot day the porter was employed to carry a load from one end of the town to the other. When he had still a great way to go, he came to a street where a gentle breeze blew from the west; and being weary he laid aside his burden and sat down to rest awhile close to a large house. Sounds of music and the smell of cooking came from the house, and the porter asked the servants the name of the master of the house. "How!" replied one of them, "do you live in Bagdad, and yet do not know that this is the house of the famous traveller Sindbad who has sailed round the world?" Just then a servant came out of the house and taking Hindbad by the arm, bade him enter, saying, "My master Sindbad desires to speak with you." The servant brought him into a hall where a large company sat round a table which was covered with dishes. At the upper end of the table there sat a comely gentleman with a long, white beard. This venerable gentleman was Sindbad. He invited the porter to draw near, and setting him down beside him served him with his own hand.

2. Render the following sentences in Persian:

(1) What o'clock is it? (2) He left on Tuesday and returned on Friday. (3) The journey from Shiraz to Bagdad, by land and sea, takes about a fortnight. (4) The late Shah of Persia wrote a journal during his visit to Europe. (5) The climate of Teheran, which is the capital of Persia, is very pleasant in spring. (6) He was one of the bravest and best of the soldiers of the king.

SECOND PAPER—Two Hours.

1. Translate:

(1) Gulistan: Chapter III., Tale 19, and Chapter VI., Tale 4.

(2) Bostan: Book II., lines 281-301.

2. (1) Give the singular and the plural of the nouns overlined in the passages from the Gulistan; and (2) the Infinitive Mood and the 2nd pers. sing. Imperative of the verbs overlined in the passage from the Bostan.

3. (1) Name the three principal parts of speech in Persian; and (2) write out the personal pronouns in full and in the form of affixes.

DYNAMICS—Three Hours.

(A Candidate may obtain FULL *marks by doing about two-thirds of this Paper.)*

(Marks will not be awarded to answers where the work is not shown.)

1. A particle moves along a straight path under a uniform acceleration a, its initial velocity being u. Prove that, after it has described a space s, its velocity v is given by $v^2 = u^2 + 2as$.

A balloon is ascending vertically with a velocity of 15 miles per hour. At a height of 200 feet a stone is dropped from it. Find the velocity with which it reaches the ground.

[Take $g = 32$ ft. per sec. per sec. and neglect air resistance.]

2. A particle is moving along a straight path with a uniform velocity of 20 ft. per sec. Another particle is moving along a parallel path in the same direction under a constant retardation of 2 ft. per sec. per sec. Its velocity when 96 ft. behind the first particle is v. When it overtakes the first particle its velocity is 40 ft. per sec. Find v; and determine how long the first particle will take to be again level with the second.

3. A string AB passes over a smooth pulley. At A is hung a mass of 20 lb., and at B is attached another smooth pulley over which a string CD passes. At C and D are hung masses of 10 lb. Determine the tension in each string.

If 5 lb. be removed from each of the masses at C and D, determine the subsequent motion, and the tension in each string. [Neglect the masses of the pulleys and strings, and regard the strings as inextensible.]

4. Enunciate the theorem known as the Triangle of Forces.

A smooth hemispherical bowl of radius 2 feet is fixed with its axis vertical. A uniform rod rests in equilibrium on the edge, the lower end being in contact with the inner surface of the bowl. If the rod be inclined at 30° to the horizon, determine its length.

5. A particle is projected with a velocity of 50 ft./sec. at an angle of 60° with the horizon. Determine the maximum height it reaches and its velocity there.

Find also at what point it will strike a plane through its point f projection perpendicular to the plane of motion and inclined to ie horizon at an angle of 30°.

6. Find the condition of equilibrium in that system of pulleys in hich one string passes round two sets of pulleys, each set fixed in block.

A man of 11 stone raises two cwt. by means of such a system of ulleys, there being four in each block. Neglecting the weight of ie pulleys, find his pressure on the ground if he pulls vertically.

7. What is the acceleration of a particle which moves in a circular ath with uniform speed?

A particle moves in a circular path of radius 3 feet. Its speed icreases uniformly from 2 to 10 revolutions per second in one inute. Find the magnitude of its resultant acceleration at the eginning and at the end of this minute.

8. Find the magnitude and line of action of the resultant of two nequal parallel forces.

A uniform plank of length 10 ft. weighs 30 lb., and a load of 1 lb. is placed on it. Two men carry it on their shoulders, one eing 1 ft. from one end, and the other 3 ft. from the other. Find ie position of the load so that each may bear an equal share of the tal weight.

9. Explain the terms Work and Energy.

A mass of 2 tons is suspended from a fixed point by a rope 17 ards long. If it is moved a distance whose horizontal component 8 yards by a horizontal pull which is always just sufficient to ove it, determine the greatest value of the pull and the work done. [Neglect the weight of the rope.]

10. A mass rests on a rough plane inclined at an angle of 30° to e horizon. A light rope attached to it passes over a small smooth lley fixed at the top of the plane, and an equal mass hangs freely the other end. If the system is just on the point of moving termine the coefficient of limiting friction between the plane and mass on it. Find also the direction of the resultant reaction the plane on the mass.

11. Define a perfect fluid.

The pressure at the surface of a fluid at rest is 15 lb. per square ch. Find the pressure at a depth of 20 ft. below the surface, ven that a cubic foot of the fluid weighs 50 lb.

2. Describe and explain some form of hydrometer.

A uniform block of wood in the shape of a rectangular parallelo ed floats in water with three-quarters of it immersed. In another uid it floats with five-eighths of it immersed. Determine the cific gravity of the wood, and of the liquid.

3. State Charles' Law.

A quantity of hydrogen occupies 2 cubic feet, when its pressure 15 lb. per sq. in. and its temperature 15° C. What volume will ccupy if the temperature be raised to 120° C. and the pressure lowered to 10 lb. per sq. in.?

14. Define "Centre of Pressure."

A rectangular plate and a plate in the form of an equilateral triangle of altitude 18 in. are immersed vertically in fluid side by side, one edge of each being in the free surface of the fluid. If the centres of pressure of the plates are at the same depth and if the pressure on each plate is the same, find the lengths of the sides of the rectangular plate.

II. FOR DEGREE OF M.A.

I. FOR ORDINARY DEGREE.

A.—DEPARTMENT OF LANGUAGE AND LITERATURE.

LATIN TRANSLATION—Two Hours.

Translate into English :—

(*a*) Ter. *Heaut.* III. i. 1—23.

(*b*) Cic. *pro Caelio,* 31, § 75—77. In § 76. nomen amici mei, etc. To what does this refer?

(*c*) Catull. XLIX. Explain the last line.

(*d*) Plin. *Epist.* II. i. 7—11.

(*e*) Livy, XXVI. 29. Explain "deprecari senatus praejudicium."

LATIN PROSE—Two Hours.

The difference between the *Prince* and the *Peasant*, is in this World : but a *Temper*[1] ought to be observed by him that has the advantage here, because of the Judgment in the next.

The End of everything should direct the means : now that of Government being the *Good of the Whole*, nothing less should be the aim of the Prince.

As often as Rulers endeavour to attain just Ends by just *Mediums*, they are sure of a *quiet* and easy Government ; and as sure of Convulsions where the *Nature* of things is violated and their *Order* overruled.

It is certain, Princes ought to have great *Allowances* made them for Faults in Government ; since they see by other People's Eyes and hear by their Ears. But *Ministers of State*, their immediate Confidents and Instruments, have much to answer for, if to gratifie private Passions, they misguide the Prince to do publick *Injury*.

Ministers of State should undertake their posts at *their Peril*. If Princes overrule them, let them shew the *Law*, and humbly *resign* : if *Fear, Gain* or *Flattery* prevail, let them answer it to the Law.

[1] i.e. *moderation*.

The Prince cannot be preserved, but where the Minister is punishable: for People, as well as Princes, will not endure *Imperium in Imperio.*

If Ministers are weak or ill men, and so spoil their Places, it is the Prince's Fault that chose them: but if their Places spoil them it is *their own Fault* to be made worse by them.

WILLIAM PENN: *Some Fruits of Solitude*

LATIN GENERAL PAPER—Two HOURS.

(*Candidates are expected to do the Translation and two Questions.*)

1. Translate into English:

Historia super libris Sibyllinis ac de Tarquinio Superbo rege.

In antiquis annalibus memoria super libris Sibyllinis haec prodita est. Anus hospita atque incognita ad Tarquinium Superbum regem adiit, nouem libros ferens, quos esse dicebat diuina oracula; eos uelle dixit uenundare. Tarquinius pretium percontatus est. Mulier nimium atque immensum poposcit; rex, quasi anus aetate desiperet, derisit. Tum illa foculum coram cum igni apposuit, tris libros ex nouem deurit et, ecquid reliquos sex eodem pretio emere uellet, regem interrogauit. Sed enim Tarquinius id multo risit magis dixitque, anum iam procul dubio delirare. Mulier ibidem statim tris alios libros exussit atque id ipsum denuo placide rogat, ut tris reliquos eodem illo pretio emat. Tarquinius ore iam serio atque ttentiore animo fit, libros tris reliquos mercatur nihilo minore pretio quam quod erat petitum pro omnibus. Sed eam mulierem tum a Tarquinio digressam postea nusquam loci uisam constitit. Libri res, in sacrarium conditi, "Sibyllini" appellati. Ad eos, quasi ad raculum, quindecimuiri adeunt, cum di immortales publice con ulendi sunt.

2. (*a*) Give, with examples, the principal uses of the prepositions *er, ad, sub.*

(*b*) In what different ways is purpose usually expressed in Latin? ive examples.

(*c*) Scan, naming the metres:

Ludebat numero modo hoc modo illoc.
Subsellium, cum orator excitat fletum.
Quae misera in gnata deperdita lamentata est.

(*d*) Arrange in chronological order: Wars with Mithridates, Battle Zama, War with Pyrrhus, Consulship of Cicero, Legislation of Gracchus, Battle of Aquae Sextiae, Leges Liciniae, Destruction Corinth, Caudine Forks, Speech pro Caelio

3. Describe the production of a Latin comedy on the stage

4. Describe the character of Pliny as he appears in his corre ondence.

5. What changes did Sulla introduce into the constitution, and with what objects?

6. Write a short life of Pompeius Magnus.

7. What were the different stages in the "cursus honorum," and the main duties attached to them?

GREEK TRANSLATION—Two Hours.

Translate into English:

1. Homer, *Il.* VI. 494–514.

Scan the second line, noting any metrical peculiarity.

2. Aristophanes, *Clouds*, 607—626.

To what does this passage refer?

3. Plato, *Apol.* 32 a—c.

Explain as briefly as possible the historical references.

4. Demosthenes, *contra Androt.* § 65–66.

Comment on κέκρινται.

5. Lysias, *contra Eratosth.* 67—69.

GREEK PROSE AND GRAMMAR—Two Hours.

1. Turn into Greek:

The army which Francis had assembled was far inferior in number to these united bodies. But during the long wars between the two nations, the French had discovered the proper method of defending their country against the English. They had been taught by their misfortunes to avoid a pitched battle with the utmost care, and to endeavour by throwing garrisons into every place capable of resistance, by watching all the enemy's motions, and by harassing them continually, to ruin them with the length of the war, or to beat them by piece-meal. This plan the French general in Picardy pursued with no less prudence than success; and not only prevented Surrey from taking any town of importance, but obliged him to retire with his army greatly reduced.

2. Translate, with notes on the syntax or idiom:

(*a*) ἀμφὶ δέ μιν σφυρὰ τύπτε καὶ αὐχένα δέρμα κελαινόν,
ἄντυξ ἣ πυμάτη θέεν ἀσπίδος ὀμφαλοέσσης.

(*b*) περίδου νυν ἐμοί,
εἰ μὴ τετράμετρόν ἐστιν ἡμιεκτέον.

(*c*) πεπεισμένος δὴ ἐγὼ μηδένα ἀδικεῖν πολλοῦ δέω ἐμαυτόν γε ἀδικήσειν καὶ κατ' ἐμαυτοῦ ἐρεῖν αὐτὸς ὡς ἄξιός εἰμί του κακοῦ.

(*d*) ἂν μὲν ἀπογνῶτε τὴν γραφὴν ταύτην, ἅπαντες εἰσιν ἀπηλλαγμένοι καὶ δίκην οὐδεὶς οὐδεμίαν μὴ δῷ.

(*e*) ἀλλ' ἀπολέσαι παρεσκευάζοντο τὴν πόλιν, εἰ μὴ δι' ἄνδρας ἀγαθούς.

3. Give examples of the principal uses of ἐπί with various cases and trace the connexion of those uses.

4. State the forms in which a prohibition can be expressed in Attic and illustrate them with examples.

GREEK—GENERAL PAPER—Two Hours.

(*Questions 1 and 2 should be attempted, and not more than* FOUR *others.*)

1. Translate into English:

Ἔτι δὲ ἐν Μαράθῳ Ἀλεξάνδρου ὄντος ἀφίκοντο παρὰ Δαρείου πρέσβεις, ἐπιστολήν τε κομίζοντες Δαρείου καὶ αὐτοὶ ἀπὸ γλώσσης δεησόμενοι ἀφεῖναι Δαρείῳ τὴν μητέρα καὶ τὴν γυναῖκα καὶ τοὺς παῖδας. ἐδήλου δὲ ἡ ἐπιστολή, ὅτι Φιλίππῳ τε πρὸς Ἀρταξέρξην φιλία καὶ συμμαχία ἐγένετο· καὶ ἐπειδὴ Ἀρσῆς ὁ υἱὸς Ἀρταξέρξου ἐβασίλευσεν, ὅτι Φίλιππος ἀδικίας πρῶτος ἐς βασιλέα Ἀρσῆν ἦρξεν οὐδὲν ἄχαρι ἐκ Περσῶν παθών. ἐξ οὗ δὲ αὐτὸς βασιλεύει Περσῶν, οὔτε πέμψαι τινὰ Ἀλέξανδρον παρ᾽ αὐτὸν ἐς βεβαίωσιν τῆς πάλαι οὔσης φιλίας τε καὶ συμμαχίας, διαβῆναί τε ξὺν στρατιᾷ ἐς τὴν Ἀσίαν καὶ πολλὰ κακὰ ἐργάσασθαι Πέρσας. τούτου ἕνεκα καταβῆναι αὐτὸς τῇ χώρᾳ ἀμυνῶν καὶ τὴν ἀρχὴν τὴν πατρῴαν ἀνασώσων. τὴν μὲν δὴ μάχην ὡς θεῶν τῳ ἔδοξεν, οὕτω κριθῆναι· αὐτὸς δὲ βασιλεὺς παρὰ βασιλέως γυναῖκά τε τὴν αὑτοῦ αἰτεῖν καὶ μητέρα καὶ παῖδας τοὺς ἁλόντας, καὶ φιλίαν ἐθέλειν ποιήσασθαι πρὸς Ἀλέξανδρον καὶ ξύμμαχος εἶναι Ἀλεξάνδρῳ· καὶ ὑπὲρ τούτων πέμπειν ἠξίου Ἀλέξανδρον παρ᾽ αὐτὸν ξὺν Μενίσκῳ τε καὶ Ἀρσίμᾳ τοῖς ἀγγέλοις τοῖς ἐκ Περσῶν ἐλθοῦσι τοὺς τὰ πιστὰ ληψομένους τε καὶ ὑπὲρ Ἀλεξάνδρου δώσοντας.

2. Arrange the following in order of time, and write short notes on *two* of them, showing their importance: Battle of Plataea, Solonian legislation, death of Socrates, plague at Athens, tyranny of 'the Thirty,' building of Long Walls, Battle of Marathon.

3. Consider Aristophanes as a critic of political institutions and of literature.

4. Contrast the Socrates of the *Clouds* with the Socrates of the *Apology*.

5. Discuss the place of Book VI. in the plan of the *Iliad*.

6. Sketch the development of colonisation among the Greeks, and draw inferences concerning the history of the chief colonising cities.

7. Discuss the modification of the Athenian constitution down to the time of Solon.

8. What do you regard as the most significant characteristics of the Greek city state?

9. Give an account of the march of the Ten Thousand, *or* of Alexander's Persian expedition.

ENGLISH LANGUAGE AND LITERATURE.

THREE HOURS.

(*Answer* EIGHT *questions, choosing* ONE *question from A*, FOUR *from B*, TWO *from C, and* ONE *from D.*)

A. LANGUAGE.

1. "The very intimate association of two languages always results in the complete extinction of the weaker."

Illustrate this statement from the history of English.

2. What is a "standard language," and how does it arise? Which dialect of English became Standard English, and what were the circumstances which favoured it?

3. Write a note on the influence of Standard English on Scots before 1603.

B.

4. What is meant by *a mystery, a morality, an interlude, a masque*? Mention an example of each.

5. Discuss Marlowe's *Dr. Faustus*, (*a*) commenting on structural strength or weakness, (*b*) comparing it with any more modern play on a similar subject.

6. Name the speakers of, and write notes on the following lines:

(*a*) "duller shouldst thou be than the fat weed
That roots itself in ease on Lethe wharf."

(*b*) "What are they children? who maintains 'em? how are they escoted? Will they pursue the quality no longer than they can sing?

(*c*) "O, you must wear your rue with a difference."

(*d*) "Hence! wilt thou lift up Olympus?"

(*e*) "A peevish schoolboy, worthless of such honour,
Join'd with a masker and a reveller."

7. "Had Hamlet been like Hotspur or Henry V. the drama would have come to an abrupt conclusion. Part of the character of Hamlet is due to the need for making a play with the given materials." Discuss.

8. "Shakespere despised the Unities." Discuss.

9. Account for the popularity of *Euphues*.

C. EIGHTEENTH CENTURY LITERATURE.

10. "Dryden's reputation is greater than is justified by his performances." Discuss.

11. Discuss Pope as (*a*) a critic, (*b*) a poet of social life, (*c*) as a satirist.

12. Give the substance of Addison's essays on *Ballad poetry* and *The Use and Abuse of Satire*.

D.

13. In what ways are Scott and Shelley representatives of their time?

14. Show your acquaintance with any poems by Campion, Marvell and Vaughan in the *Golden Treasury*.

FRENCH LANGUAGE AND LITERATURE.

FIRST PAPER.—Three Hours.

1. Translate into French:

The Green lay at the extremity of the village, and from it the road branched off in two directions, one leading farther up the hill by the church, and the other winding gently down towards the valley. On the side of the Green that led towards the church, the broken line of thatched cottages was continued nearly to the churchyard gate; but on the opposite, north-western side, there was nothing to obstruct the view of gently swelling meadow, and wooded valley, and dark masses of distant hill. That rich undulating district of Loamshire to which Hayslope belonged, lies close to a grim outskirt of Stonyshire, overlooked by its barren hills as a pretty blooming sister may sometimes be seen linked in the arm of a rugged, tall, swarthy brother; and in two or three hours' ride the traveller might exchange a bleak treeless region, for one where his road wound under the shelter of woods, or up swelling hills, and where at every turn he came upon some fine old country seat nestled in the valley or crowning the slope.

GEORGE ELIOT.

2. Comment (in English) on the versification of the following passage:

— Enfant, car votre voix est enfantine et tendre,
Vos discours sont prudents, plus qu'on n'eût dû l'attendre;
Mais, toujours soupçonneux, l'indigent étranger
Croit qu'on rit de ses maux et qu'on veut l'outrager.
Ne me comparez point à la troupe immortelle:
Ces rides, ces cheveux, cette nuit éternelle,
Voyez: est-ce le front d'un habitant des cieux?
Je ne suis qu'un mortel et des plus malheureux!
Si vous en savez un pauvre, errant, misérable,
C'est à celui-là seul que je suis comparable.

A. CHÉNIER.

3. Comment (in English) on the language, construction and meaning of the following passage (*Britannicus*, Acte II. Sc. ii.):

Néron (to Burrhus).

Eloigné de ses yeux, j'ordonne, je menace,
J'écoute vos conseils, j'ose les approuver;
Je m'excite contre elle, et tâche à la braver.
Mais (je t'expose ici mon âme toute nue)
Sitôt que mon malheur me ramène à sa vue,
Soit que je n'ose encor démentir le pouvoir

De ces yeux où j'ai lu si longtemps mon devoir;
Soit qu'à tant de bienfaits ma mémoire fidèle
Lui soumette en secret tout ce que je tiens d'elle,
Mais enfin mes efforts ne me servent de rien:
Mon génie étonné tremble devant le sien.
Et c'est pour m'affranchir de cette dépendance
Que je la fuis partout, que même je l'offense,
Et que de temps en temps j'irrite ses ennuis,
Afin qu'elle m'évite autant que je la fuis.

SECOND PAPER—Three Hours.

1. Translate into English:

Hermione et les bergers.

Palès fait gazouiller la flûte sous ses doigts,
Mélène sous sa lèvre anime le hautbois,
Et chacun à son tour que la lutte stimule,
Module un chant qui monte au fond du crépuscule;
Hermione aux longs yeux de longs cils ombragés,
Un doigt contre sa joue, écoute les bergers.
Hermione est au seuil de la quinzième année;
Son âme douce est comme une fleur inclinée.
La Pitié l'a baisée au cœur dans son berceau,
Et toujours dans ses bras elle porte un agneau.
La nuit tombe . . . A cette heure, abandonnant la lutte,
Le hautbois lentement se marie à la flûte.
Dans le soir qui s'étoile un chant s'élève alors
Si poignant et si tendre en ses simples accords,
Qu'il semble soupirer la tristesse éternelle
De tout ce que la terre a de plus doux en elle!
Et la vierge aux longs cils sous l'extase étouffant
Sent comme un poids trop lourd briser son cœur d'enfant.
Un mystère autour d'elle a transformé les choses,
Doux comme un flot de lune en été sur des roses.
Immobile, le sein gonflé d'un long soupir,
Jusqu'au fond de son être elle se sent mourir,
Et laisse sur sa joue, et sans qu'elle s'en doute
Son âme en larmes d'or descendre goutte à goutte.

A. Samain.

2. Composition française.

Traiter l'UN des sujets suivants:

(*a*) Analyser et comparer au point de vue de la pensée et de la forme les trois poèmes suivants:

Le Lac, *La Tristesse d'Olympio*, *Le Souvenir.*

(*b*) Montrer en quoi diffèrent essentiellement au point de vue de la conception dramatique ces trois tragédies de Corneille: *Le Cid*, *Horace*, *Cinna.*

(*c*) Analyser et rapprocher ces deux caractères: Oreste et Néron.

GERMAN LANGUAGE AND LITERATURE.

FIRST PAPER—Three Hours.

A.

1. Translate into German :

I passed up the street, looking as I went at all the houses to the right hand and to the left ; but I could discover no pretext, nor see an inducement, to enter any. I rambled round the hamlet, going sometimes to a little distance and returning again, for an hour or more. Much exhausted, and suffering greatly now for want of food, I turned aside into a lane and sat down under the hedge. Ere many minutes had elapsed, I was again on my feet, however, and again searching something—a resource, or at least an informant. A pretty little house stood at the top of the lane, with a garden before it ; exquisitely neat, and brilliantly blooming. I stopped at it. What business had I to approach the white door or touch the glittering knocker? In what way could it possibly be the interest of the inhabitants of that dwelling to serve me? Yet I drew near and knocked. A mild looking, cleanly-attired young woman opened the door. In such a voice as might be expected from a hopeless heart and fainting frame—a voice wretchedly low and faltering—I asked if a servant was wanted here.

"No," said she ; "we do not keep a servant."

2. Write a German essay on either of the following subjects :

(1) The parable of the rings in Lessing's *Nathan der Weise* and its interpretation.

(2) "Ein unnütz Leben ist ein früher Tod."

B.

(*Answer* THREE *of the following questions.*)

1. What do you know about Grimm's Law?

2. Give rules, with examples, to shew how foreign words are treated in German, in regard to pronunciation.

3. Write short notes on : Umlaut, grammatischer Wechsel, the second sound shifting, analogy ; in so far as they concern the history of the German language.

4. What is Luther's position in the history of the German language?

5. What criteria have we for deciding that certain foreign words were introduced into German previous to the beginnings of Old High German Literature? Mention some such words.

C.

Construct short sentences illustrating the various ways of translating the English participles into German.

SECOND PAPER—Three Hours.

1. Translate into English:

Egmont allein.

(*a*) Warum denn jetzt, der du ſo oft gewalt'ge Sorgen gleich Seifenblaſen dir vom Haupte weggewieſen, warum vermagſt du nicht die Ahnung zu verſcheuchen, die tauſendfach in dir ſich auf- und niedertreibt? Seit wann begegnet der Tod dir fürchterlich, mit deſſen wechſelnden Bildern, wie mit den übrigen Geſtalten der gewohnten Erde, du gelaſſen lebteſt?—Auch iſt er's nicht, der raſche Feind, dem die geſunde Bruſt wetteifernd ſich entgegenſehnt; der Kerker iſt's, des Grabes Vorbild, dem Helden wie dem Feigen widerlich. Unleidlich ward mir's ſchon auf meinem gepolſterten Stuhle, wenn in ſtattlicher Verſammlung die Fürſten, was leicht zu entſcheiden war, mit wiederkehrenden Geſprächen überlegten, und zwiſchen düſtern Wänden eines Saals die Balken der Decke mich erdrückten

Nathan allein.

(*b*) Nathan. Hm! hm!—wunderlich!—Wie iſt
Mir denn?—Was will der Sultan? was? ich bin
Auf Geld gefaßt, und er will—Wahrheit. Wahrheit!
Und will ſie ſo,—ſo bar, ſo blank,—als ob
Die Wahrheit Münze wäre!—Ja, wenn noch
Uralte Münze, die gewogen ward!—
Das ginge noch! Allein ſo neue Münze,
Die nur der Stempel macht, die man aufs Brett
Nur zählen darf, das iſt ſie doch nun nicht!
Wie Geld in Sack, ſo ſtriche man in Kopf
Auch Wahrheit ein? Wer iſt denn hier der Jude?
Ich oder er?—Doch wie? Sollt' er auch wohl
Die Wahrheit nicht in Wahrheit fordern?—Zwar,
Zwar der Verdacht, daß er die Wahrheit nur
Als Falle brauche, wär' auch gar zu klein!—
Zu klein?—Was iſt für einen Großen denn
Zu klein?—Gewiß, gewiß: er ſtürzte mit
Der Türe ſo ins Haus! Man pocht doch, hört

Doch erſt, wenn man als Freund ſich naht.—Ich muß
Behutſam gehn!—Und wie? wie das?—So ganz
Stockjude ſein zu wollen,—geht ſchon nicht.—
Und ganz und gar nicht Jude, geht noch minder.
Denn, wenn kein Jude, dürft' er mich nur fragen,
Warum kein Muſelmann? Das war's! Das kann
Mich retten!—Nicht die Kinder bloß ſpeiſt man
Mit Märchen ab.—Er kommt. Er komme nur!

Iphigenie (nach einigem Stillſchweigen).

(*c*) Hat denn zur unerhörten Tat der Mann
Allein das Recht? Drückt denn Unmögliches
Nur er an die gewalt'ge Heldenbruſt?
Was nennt man groß? Was hebt die Seele ſchaudernd
Dem immer wiederholenden Erzähler,
Als was mit unwahrſcheinlichem Erfolg
Der Muthigſte begann? Der in der Nacht
Allein das Heer des Feindes überſchleicht,
Wie unverſehen eine Flamme wütend
Die Schlafenden, Erwachenden ergreift,
Zuletzt, gedrängt von den Ermunterten,
Auf Feindes Pferden, doch mit Beute kehrt,
Wird der allein geprieſen? Der allein,
Der, einen ſichern Weg verachtend, kühn
Gebirg' und Wälder durchzuſtreifen geht,
Daß er von Räubern eine Gegend ſäubre?

(*d*) Entfernt von der Kriegsbühne und zu einer folternden Untätigkeit verurteilt, während daß ſeine Nebenbuhler auf dem Felde des Ruhms ſich Lorbeeren ſammelten, hatte der ſtolze Herzog dem Wechſel des Glücks mit verſtellter Gelaſſenheit zugeſehen und im ſchimmernden Gepränge eines Theaterhelden die düſteren Entwürfe ſeines arbeitenden Geiſtes verborgen. Von einer glühenden Leidenſchaft aufgerieben, während daß eine fröhliche Außenſeite Ruhe und Müßiggang log, brütete er ſtill die ſchreckliche Geburt der Rachbegierde und Ehrſucht zur Reife und näherte ſich langſam, aber ſicher dem Ziele. Erloſchen war alles in ſeiner Erinnerung, was er durch

den Kaiſer geworden war; nur was er für den Kaiſer getan hatte, ſtand mit glühenden Zügen in ſein Gedächtnis geſchrieben. Seinem unerſättlichen Durſt nach Größe und Macht war der Undank des Kaiſers willkommen, der ſeinen Schuldbrief zu zerreißen und ihn jeder Pflicht gegen den Urheber ſeines Glücks zu entbinden ſchien. Entſündigt und gerechtfertigt erſchienen ihm jetzt die Entwürfe ſeiner Ehrſucht im Gewand einer rechtmäßigen Wiedervergeltung. In eben dem Maße, als ſein äußerer Wirkungskreis ſich verengte, erweiterte ſich die Welt ſeiner Hoffnungen, und ſeine ſchwärmende Einbildungskraft verlor ſich in unbegrenzten Entwürfen, die in jedem anderen Kopf als dem ſeinigen nur der Wahnſinn erzeugen kann.

2. Write short notes on the following (with translation): mein geängstigt fürchtend Herz; der Jahrstag dieser unglückseligen Tat Ist heute abermals zurückgekehrt; wie stünd' es um die Sicherheit der Staaten?; für Euch, der sie besitzen will; Euch lüstet's nicht, des Norfolks Grossmut nachzuahmen; wie steht's um Ihro Majestät?; verlassen hatte Euch die zarte Scheu der Menschen; jede andern Mittel sind vergeblich.

3. Translate into idiomatic English: (er ist) beobachtet von Menschen, die ihm auf alle Weise beikommen möchten; wenn ich die Instruktion sehen will, wird er mich herumziehen; Schenke mir diese Betrachtungen!; der ist gut köpfen; ich soll . . . auf den Zahn Euch fuhlen; ich soll den Herrn nur erst ergründen, ob er so der Mann wohl ist; ich bin seit geraumer Zeit ein wenig übern Fuss mit ihm gespannt; der Kommissarius erhielt Lob vom Hofe, weil er einen ehrlichen Teufel, an den man wollte, zum Schelmen verhört hatte.

B.

(*Answer* SIX *of the following questions.*)

1. Describe the contents of the first monologue in Goethe's *Iphigenie*. Wherein lies its importance for the whole drama?

2. What does Goethe mean by the demonic element in men's lives? Illustrate your answer by reference to Goethe's *Egmont*. Is there any indication in *Egmont* that these forces do not ultimately triumph?

3. Contrast the characters of Egmont and William of Orange.

4. What were Lessing's sources for *Nathan der Weise*? What criticisms may be directed against *Nathan* as a play?

5. To what extent is historic truth sacrificed in Schiller's *Maria Stuart* in representing Mary and Elizabeth as contrasted characters?

6. What are the most fruitful periods in German literature? Characterise them generally.

7. Account for the pre-eminence of Walter von der Vogelweide over his contemporaries.

8. Describe the condition of the Drama in Germany immediately before and after Lessing.

9. Into what periods may Goethe's literary activity be divided? Characterise them, naming the works belonging to each period.

10. Sketch the history of the German Lyric down to Luther.

CELTIC.

FIRST PAPER—THREE HOURS.

1. Gartnait mac cannech acus ete ingen gillemichel dorat sat pet mec Cobrig ri cosecrad eclasi crist agus petir abstoil acus do columcille acus do drostan, sér o na hulib dolodib conanascad do cormac, escob dunicallenn. innocmad bliadin rigi dabid. Testibus istis. nectan escob abberdeon ocus léot áb brecini acus maledonni mac meic bead ocus álgune mac árcill ocus ruadri mormar marr ocus matadin brithem ocus gillecrist mac Cormaic acus malpetir mac domnaill acus domongart ferleginn turbruad acus gillecolaim mac muredig acus dubni mac malcolaim.

What is the position of the Book of Deer in the history of Scottish Gadhelic literature.

Indicate briefly its linguistic features, and express the foregoing specimen literally in English.

2. Translate:

Bói imnisse chatha etar Ultu ocus Eogan mac nDurthacht. Tiagait Ulaid don chath. Facabar som inna chotlud. Maitti for Ultu. Fácabar Conchobor ocus Cuscraid Mend Machae ocus sochuide mór olchenae. D an tuschi seom a n gol. Smithi iarom com-memdatar "in da liic robátar imbi. Fiad Briere ucut doronad" ol Fergus.

Atraig lasodain. Cotriccim-se friss i ndorus ind liss os mé athgoite.

'Fuit! Dia do bethu! a phopa Fhergus,' ol sé.

'Cate Conchobor?'

'Ni fetar sa,' olmé.

Téit ass iarom. Ba dorchae ind adaig. Fobair a n-ármach. Conaccai ara chiunn infer, ocus leth a chinn fair, ocus leth fir aili for a muin.

'Congna lem, a Chúchulaind,' olsé. 'Ro-m-bíth, ocus tuccus leth mo bráthar for mo muin. Beir sist lim.'

3. Analyse carefully in detail the chief verbal forms in the preceding passage.

4. Translate:

Dála Aonghusa an Bhrogha, ⁊ oide foghlamtha Dhiarmuda Ui Dhuibhne, do foillsigheadh dho anns an m brugh os Boinn an ghuais ina raibh a dhalta, ⁊ Diarmud, an tan sin; agus do ghluais a g-coimhdeacht na gaoithe glan-fhuaire agus ní comhnuidhe do righne go ráinig Doire dhá Bhoth. Ann sin do chuaidh sé gan fhios d'Fhionn iná d'Fhiannaibh Eireann gus an ionad ina raibh Diarmud agus Grainne, agus bheannachas do Dhiarmud agus is e a dubhairt: "Creud i an chomhairle so do righnis, a mhic Ui Dhuibhne?"

"Atá," ar Diarmud, "inghion rígh Eireann d'euloghadh liom ó n-a h-athair agus o Fhionn, agus ní dom dheoin táinig sí liom."

"Maiseadh, tigeadh duine aguibh fá gach beinn dom bhrat-sa," do ráidh Aonghus, "agus beurfad-sa liom sibh as an áit sin a bh-fuilti gan fhios gan airiughadh d'Fhionn iná d'Fhiannaibh Eireann."

"Beir-se Grainne leat," do ráidh Diarmud, acht ní rachfad-sa leat go bráth; gidheadh má bhím-se am bheathaidh do láthair leanfad thu, agus muna m-biad, cuirse Grainne chum a h-athar agus deunadh se olc no maith dhi."—Tórnigheacht Dhiarmuda agus Ghrainne.

5. Translate:

Agus do bhí Mochaomhóg ag éisteacht leo, agus do ghuidh Dia go dúthrachtach fá n-a fhoillsiúghadh dhó, cia ro chan an ceól sin; agus ro foillsigheadh dhó gurab iad Clanna Lir do rinne e. Agus iar d-teacht na maidne ar n-a mhárach, gluaiseas Mochaomhóg go Loch na h-Eanlaithe agus do chonnaire na h-éin uadha ar an loch; agus do chuaidh go h-oirear an chuain mar a bh-facaidh iad, agus do fhiafraigh dhíobh: "An sibh Clann Lir," ar sé.

"Is sinn go deimhin," ar iad-san.

"Do bheirim a bhuidhe sin le Dia," ar Mochaomhóg, "oir is ar bhur son tangus-sa chum na h-innse-si, tar gach n-innsi eile a n-Eirinn; agus tigidh a d-tír, agus tabhraidh taobh liom-sa, oir is ann so atá a g-cinneadh dhibh deagh oibreacha do dhéanamh, agus dealughadh re bhur b-peacthaibh."

Tangadar a d-tír iar sin, agus tugadar taobh leis an g-cléireach; agus do rug leis da adhbhuidh féin iad; agus do bhídis ag deanamh tráth, agus ag éisteacht aifrinn a bh-fochair an chléirigh. Agus tug Mochaomhog ceard maith chuige, agus d'fhurail air slabhradha airgid aoinghil do dheanamh dhoibh.

6. Give some account of Coluim-Cille, and estimate his influence;

Or

Sketch the life and works of Adamnán of H-ii.

7. Write a note on the derivations of one dozen place-names on the West Coast of Scotland.

Or

Indicate the nature and importance of the Stowe Missal.

8. What is understood in Gadhelic Literature by the Three Sorrows of Story-Telling? Indicate the nature of any one of these.

Or

Show by illustrative examples, taking account of early forms such as in the Leabhar na h-Uidhri version of the Tāin Bo Cualnge, the importance of Gadhelic as an instrument of philological study.

SECOND PAPER—Three Hours.

1. Translate into English:

(*a*) 'N am do dhaoine dol nan éideadh,
Los na reabalaich a philleadh,
Cha do shaoil sinn, gus na gheill sinn,
Gur sinn féin a bhite 'g iomain;
Mar gu'n rachadh cu ri caoirich,
'S iad 'nan ruith air aodainn glinne.
'S ann mar sin a ghabh iad sgaoileadh
Air an taobh air an robh sinne.

Bha na h-eich gu cruitheach, srianach,
Giortach, iallach, fiamhach, trupach:
'S bha na fir gu h-armach, foghlumt',
Air an sonnrachadh gu murta.
'N uair a dh aom sinn bharr an t-sleibh',
Is móran feum againn air furtach
Na bha beo bha cuid dhuibh leoint',
S bha sinn bronach mu' na thuit ann.

(*b*) 'Si 'n eilid bheag, bhinneach
Bu ghuiniche, sraonadh
Le cuinnein geur, biorach,
A sireadh na gaoithe,
Gasganach, speireach,
Feadh chreachainn na beinne,
Le eagal ro' theine,
Cha teirinn i'n t-aonach;
Ge d'theid i na cabhaig,
Cha ghearain i maothan;
Bha sinnsearachd fallain,
'Nuair a shineadh i h-anail,

'S toil-inntinn leam tanasg,
Ga' langan a chluintinn
'Si 'g iarraidh a leannain
'N àm darraidh le caoineas,
'S e damh a chinn allaidh
Bu gheal-cheireach feaman,
Gu caparach, ceannard.
A b' fharamach raoiceadh,
'Se chomhnuidh 'm Beinn-dorain
'Se eolach mà fraoinibh.

Tha 'n eilid anns an fhrith
Mar bu choir dh'i bhi
Far am faigh i millteach
Glan-feoirneanach;
Bruchorachd a's cioh,
Lusan am bi brigh,
Chuireadh sult a's igh
Air a loincinibh

Fuaran anns am bi
Biolaire gun dìth
'S millse lea' na 'm fion
'Se gun oladh i;
Cuiseagan a's riasg,
Chinneas air an t-sliabh,
B' annsadh lea' mar bhiadh
Na na foghlaichean.

(*c*) Se Coire-cheathaich nan aighean suibhlach,
An coire runach, is urar fonn,
Gu lurach, miadh-fheurach min-gheal, sughar
Gach lusan fluar bu chubhraidh leam;
Gu molach dù-ghorm, torrach lùisreagach
Corrach pluireanach, dlu-ghlann grinn;
Caoin, ballach, ditheanach, cannach, misleanach,
Gleann a' mhilltich, 'san lionmhor mang.

Tha falluinn dhùinte, ga dainghean, dubailt'
A mhaireas uine, mu'n ruisg i lòm,
Do'n fheur is cul-fhinne dh-fhas na h-ùrach,
'S a bharr air lubadh le drinchda tròm
Mu choire guanach nan torran uaine,
A' bheil luibh a's luachair a suas gà cheann:
'S am fasach guamach an càs a bhuanadh,
Nam b' aite cruidh e 'm biodh tuath le'n suim.

2. Comment on the above pieces of poetry as to time, place and circumstances.

3. Choose any dozen words from Question 1 and add remarks as to derivation, history, change of meaning and obsoleteness.

4. Translate into idiomatic Gaelic:

As a young man the bard, who appears to have been remarkably handsome, fell in love with a young girl of higher station and easier circumstances than his own. Her father, Robert Campbell, was an under-factor and feuholder, and she, as a farmer's daughter, had some cows and calves in her own right for dowry. The son of poor parents and without patrimony, Macintyre was afraid she would spurn his love, and for three months he suffered terrible suspense while he daily watched her from his own door go in and out about her work more than half a mile away. In all, three of his published songs are in praise of this heroine. And when in the first of these he ventured to address her, he tried to extenuate his humble circumstances by saying that twelve things had kept him poor. These he enumerates as drinking, feasting, weddings, music, society, merchants, markets, wooer's gifts, folly and youth. What the remaining two were the bard does not say. But there is nothing more pleasing in the lives of any of the poets than the courtship of Duncan and Mairi.

That the bard had a strong vein of comic humour, is evident from his earliest productions. He could be very cutting, and sarcastic too, as his satires show. Of an agreeable and easy disposition, he was always a pleasant and convivial companion, with the reputation of never

wantonly attacking people; but if provoked, as in the case of Fletcher who refused him his due, he was wont to make his opponent feel the pungent effect of a bard's resentment. He was fair of hair and face, with a pleasant countenance and a happy attractive manner—a striking personage who was treated with marked respect wherever he was known.

5. Give the genitive singular of *amhainn*, *madadh-ruadh*, *sùil*, *druim*; the nominative plural of *nathair*, *ceum*, *gobhar*, *sgian*, *leaba*; and decline singular and plural *cluas*.

6. Give a short account of "The Leeching of Cian's Leg."

7. Write in Gaelic an account of the life and work of Duncan Ban Macintyre.

8. Describe the contents of "The Book of the Dean of Lismore." Add remarks as to its linguistic and literary value.

HEBREW.

FIRST PAPER—THREE HOURS.

1. Point and translate:

ויהי מקץ עשרת ימים ויהי דבר־יהוה אל־ירמיהו׃
ויקרא אל־יוחנן בן־קרח ואל כל־שרי החילים אשר אתו
ולכל־העם למקטן ועד־גדול׃ ויאמר אליהם כה־אמר
יהוה אלהי ישראל אשר שלחתם אתי אליו להפיל
תחנתכם לפניו׃ אם־שוב תשבו בארץ הזאת ובניתי
אתכם ולא אהרס ונטעתי אתכם ולא אתוש כי נחמתי
אל־הרעה אשר עשיתי לכם׃ אל־תיראו מפני מלך בבל
אשר־אתם יראים מפניו אל־תיראו ממנו נאם־יהוה כי־
אתכם אני להושיע אתכם ולהציל אתכם מידו׃ ואתן
לכם רחמים ורחם אתכם והשיב אתכם אל־אדמתכם׃
ואם־אמרים אתם לא נשב בארץ הזאת לבלתי שמע
בקול יהוה אלהיכם׃ לאמר לא כי ארץ מצרים נבוא

אשר לא־נראה מלחמה וקול שופר לא נשמע וללחם
לא־נרעב ושם נשב : ועתה לכן שמעו דבר־יהוה שארית
יהודה כה־אמר יהוה צבאות אלהי ישראל אם־אתם שום
תשמון פניכם לבא מצרים ובאתם לגור שם : והיתה
החרב אשר אתם יראים ממנה שם תשיג אתכם בארץ
מצרים והרעב אשר־אתם דאגים ממנו שם ידבק אחריכם
מצרים ושם תמתו :

2. Render into punctuated Biblical Hebrew :-

Having arrived nigh unto the house of his father, Abraham feared to go into the house; so he removed some distance from the house and sat under a palm tree, where thus abiding by himself he said: "It needs must be that there is a God who hath life and power more than man, since he maketh man, and man without God could not make man." Thereupon, looking round upon the stars, the moon and the sun, he thought that they had been God. But after considering their variableness with their movements, he said: "It needs must be that God move not, and that clouds hide him not; otherwise men would be brought to naught." Whereupon, remaining thus in suspense, he heard himself called by name, "Abraham." . . . He answered: "Who calleth me?" Then he heard it said: "I am the angel of God, Gabriel." Therefore was Abraham filled with fear: but the angel comforted him, saying: "Fear not, Abraham, for thou art friend of God; wherefore, when thou didst break in pieces the gods of men, thou wert chosen of the God of the angels and prophets; insomuch that thou are written in the book of life." *Gospel of Barnabas.*

3. Take any *two* of the following:

(*a*) The nature and value of the chronological *data* of the Book of Kings.

(*b*) The reign of Hezekiah.

(*c*) The Reformation in the reign of Josiah.

SECOND PAPER—Three Hours.

1. Translate, with brief critical or explanatory notes where required:

(*a*) 2 Kings xvi. 12—18:

וַיָּבֹא . . . . . אַשּׁוּר :

(*b*) Isaiah XLIX. 1–6.

שִׁמְעוּ . . . . הָאָרֶץ:

(*c*) Isaiah LIX. 9–15*a*:

עַל־כֵּן . . . . מִשְׁתּוֹלֵל:

(*d*) Psalm XCIV. 1–10.

אֵל . . . דָּעַת:

2. (*a*) Write short notes on the forms (parsing not sufficient).

מֵאִתּוֹ: יֶדְכֶם: אַרְאֶךָּ: קָרֵחַ: לַגִּיד: אִתִּי: אֶחָת: וַתֵּחָבֵא: וִישַׁלַּח: רַכָּב: הִנְנֶה: עוֹלָתָה: בִּרְכִּי: שְׁלֹמֹה: מְהַלֵּךְ:

(*b*) Explain the phrases:

הַמְסֻכָּן תְּרוּמָה: רֹעֶה אֵפֶר לֵב הוּתַל הִטָּהוּ: הֹבְרֵי שָׁמַיִם: נְשֻׂא פָנִים: לָתֵת לוֹ נִיר: עָצוּר וְעָזוּב: גֵּרֶם הַמַּעֲלוֹת: יָמִינוּ פְּנוּ בְעֶבְרָתְךָ: רְחַב יָדָיִם:

(*c*) Write critical notes on:

(*a*) וַיַּעֲמֵד אֶת־פָּנָיו וַיָּשֶׂם עַד־בֹּשׁ:

(*b*) הַעִירוֹתִי מִצָּפוֹן וַיַּאת מִמִּזְרַח־שֶׁמֶשׁ יִקְרָא בִשְׁמִי:

(*c*) וַיִּתֵּן אֶת־רְשָׁעִים קִבְרוֹ וְאֶת־עָשִׁיר בְּמֹתָיו:

LXX: *καὶ δώσω τοὺς πονηροὺς ἀντὶ τῆς ταφῆς αὐτοῦ, καὶ τοὺς πλουσίους ἀντὶ τοῦ θανάτου.*

(*d*) מִי יוֹדֵעַ עֹז אַפֶּךָ וּכְיִרְאָתְךָ עֶבְרָתֶךָ:

(*e*) אֵל נֹשֵׂא הָיִיתָ לָהֶם וְנֹקֵם עַל־עֲלִילוֹתָם:

3. Discuss *two* of the following:

(*a*) The characteristics of Hebrew poetry.

(*b*) The exilic period in Hebrew literature.

(*c*) The origin and character of vowel representation in Hebrew writing.

B.—DEPARTMENT OF MENTAL PHILOSOPHY.

LOGIC—THREE HOURS.

(*Not more than* EIGHT *questions to be attempted.* TWO *questions to be taken from* EACH *of the Sections A, B and C.*)

A.

1. Carefully distinguish between logical terms and names, and show how the distinction affects the division of terms into (*a*) general and collective, and (*b*) abstract and concrete.

2. If it be given true that "no one but a fool prefers town to country," show which of the following propositions are (*a*) inferrible from this given proposition, (*b*) consistent with it, though not inferrible, (*c*) inconsistent with it :

(i) All fools prefer town to country.
(ii) Some who prefer town to country are not fools.
(iii) Some who are not fools prefer town to country.
(iv) All who do not prefer town to country are wise.
(v) All who are not fools do not prefer town to country.
(vi) None who do not prefer town to country are wise.

3. What is meant by the quantification of the predicate? Discuss its value, indicating the arguments in favour of it and against it.

4. Explain and examine Mill's theory of the import of the proposition.

5. Explain and discuss the view that "the fundamental form of inference is reasoning from particulars to particulars."

B.

6. Are all mental processes conscious processes?

7. Carefully explain what is meant by Conation, and discuss the view that it is the primary mode of consciousness.

8. Explain, with illustrations, what is meant by reflex action, and indicate its psychological significance.

9. Explain the psychological "law of relativity," and illustrate it by reference to some of the characteristics of sensation.

10. What is the nature of the distinction between self and not-self, and how is it related to the distinction between subject and object?

C.

11. Show the bearing of Berkeley's theory of vision on his metaphysical doctrines.

12. "I do not deny absolutely that there are general ideas, but only that there are any *abstract* general ideas."

Explain and discuss, giving Berkeley's reasons for his view.

13. Is Berkeley's immaterialism inconsistent with the scientific view of matter?

14. Explain and examine the views of Descartes, Locke and Berkeley respectively regarding the relation of mind to its ideas.

15. Explain the statement that "the very existence of an unthinking being consists in being perceived."

MORAL PHILOSOPHY—Three Hours.

(*All candidates for the Degree are required to answer not less than* TWO *nor more than* THREE *questions in Section A, and not less than* SIX *nor more than* SEVEN *in Section B.*)

Section A.

1. Discuss the justice of Plato's attack on the Sophists.

2. What does Plato mean by Dialectic, and how does he distinguish it from mere Eristic?

3. Expound Plato's conception of Immortality, and examine the chief arguments which he uses in favour of it.

4. State and examine Aristotle's criticisms of Plato's Ideal State.

5. Sketch Plato's views concerning the relative stability of different forms of government.

Section B.

1. "All sciences are abstract; hence there can be no *science* of the moral life." Discuss this statement.

2. Examine the relation of traditional and reflective thought and indicate their respective merits and defects.

3. Indicate and examine the different interpretations of the following: "Intuitive Knowledge"; "Immediate Knowledge"; "Necessary Truth"; "Doubt."

4. What ambiguities are there in the use of the term "Infinite"? Discuss the possibility of knowing the Absolute.

5. What is the relation of Poetry, Philosophy and Religion? Illustrate your answer by reference to the main movements of thought in the nineteenth century.

6. Indicate the main stages in the evolution of freedom; and criticise the attempts to represent man as isolated from the natural cosmos.

7. Distinguish between "Organism" and "Machine." What advantages has the former conception over the latter in ethical theory?

8. Examine and illustrate the view that "The end of the individual is the State, and the end of the State is the individual."

9. Examine the view that pleasure cannot be a *moral* end. Can hedonism justify the pursuit of a *common* good?

10. "Morality is infinite assertion on the basis of infinite negation." Explain and examine this doctrine.

11. Describe and discuss the "Wise Man" of the Stoic and Epicurean theories.

12. State and examine Kant's view of "The Good Will."

13. What is the value of Mill's modification of the ethical theory of Bentham?

POLITICAL ECONOMY—THREE HOURS.

(*Only* EIGHT *questions to be attempted;* FIVE, *of which No.* 5 *must be one, from Section A, and* THREE *from Section B.*)

A.

1. What are some of the differences between Land and other forms of Wealth?

2. What is involved in the expression "Increase of Labour"?

3. How does Wealth "grow"?

4. What part in the division of labour is played by the employing classes?

5. Give in outline the argument contained in Chapters I. and II., Book VI., of Marshall (*The Theory of Distribution*).

6. What elements are contained in Long Period Normal Supply Price?

7. Give some account of the social legislation of the sixteenth century.

8. What is meant by saying that Demand and Supply always meet?

B.

9. "Factory Laws, like Trade Union regulations, are an interference with the liberty of the subject." Discuss.

10. "We are living on our capital." "We are exporting capital to our trade rivals." Explain carefully the meaning of these statements, and show their relation to the statistics of imports and exports.

11. What is the place of money in home and international trade?

12. Distinguish between the banking and the currency principle.

13. Discuss some of the probable effects of the abolition of boy-labour under 16 years of age.

EDUCATION—THREE HOURS.

(*Only* NINE *questions are to be answered,* FOUR *in Section A, and* FIVE *in Section B.*)

SECTION A.

1. "Moral evil is due rather to bad nurture than to inherent vice." Discuss this from the point of view of the *Republic*.

2. Contrast the ideas of Plato and of Rousseau with regard to the religious instruction of children.

3. Outline the scheme of higher education given in the *Republic* and state definitely what is its aim.

4. State and comment on Rousseau's views regarding the teaching of History and Literature during adolescence.

5. What do you understand by the Heuristic Method? On what grounds does Rousseau advocate it? Give illustrations of its use and its limitations in the teaching of any two of the ordinary school subjects.

6. "The master work of a good education is to make a rational man." State in outline how each period of Emile's development leads to the realisation of this aim.

SECTION B.

1. "The difference between Spartan and Athenian education is the difference between the unchanging East and the progressive West." Discuss this and account for Plato's approval of the Spartan methods.

2. "The University of Glasgow is a corporate body . . . It was originally founded, like most other ancient establishments of the same nature, by the authority of the see of Rome. Pope Nicholas V., by a bull, dated the seventh of January, 1450-1, erects and establishes in Glasgow a '*Studium Generale . . . tam in theologia ac jure canonico et civili, quam in artibus.*'" Comment on these statements and bring out their significance by a comparison with one of the earliest Universities.

3. What did Pestalozzi mean by the *ABC* of *Anschauung*? Illustrate his view by reference to the teaching of language, form and number.

4. Explain and give examples of the educational laws of Unity and of Contrast as set forth by Froebel. What is the relation of the two laws to each other?

5. What, according to Herbart, are the respective functions of training and instruction in education?

6. "The soul is originally a *tabula rasa* in the most absolute sense without any form of life or presentation: consequently, there are in it neither primitive ideas nor any pre-disposition to form them. All the ideas without exception are the product of time and experience." Expound the main principles of Herbart's psychology suggested in this passage, and show their connection with his educational principles.

7. Classify the different ages from 5 to 18 according to the rate of growth in height, noting any special features in the two sexes. Indicate the relative development of the fundamental and the accessory muscles at each period.

8. Why does the child need to be taught?

C.—DEPARTMENT OF SCIENCE.

MATHEMATICS.

FIRST PAPER—Three Hours.

(Note.—*Candidates may obtain full marks by doing correctly about* two-thirds *of this paper.*)

1. Explain the Convention of Signs for Lines, Angles, and Areas.

If ABC is a triangle, prove that for any position of a point O,

$$\triangle OAB + \triangle OBC + \triangle OCA = \triangle ABC.$$

$ABCD$ is a crossed parallelogram, made by joining two equal and parallel straight lines AB, CD towards opposite parts. Determine the area of $ABCD$, according to the convention of signs.

2. ABC is a triangle and AD, BE, CF are its perpendiculars, meeting at O. Prove that the circum-circle of DEF bisects OA.

Prove also that if OLT is drawn from O through the mid-point L of BC, to meet the circle ABC in T,

$$OL = LT.$$

3. Define harmonic section of a line.

$ABCD$ is a quadrilateral, and E, F, H are the intersections of AB, CD; BC, AD; AC, BD respectively. Prove that the rays EB, EC; EH, EF form a harmonic pencil.

Prove also that if $AF : DF = BF : CF$ two of the six lines which make up the complete quadrilateral are parallel.

4. What do you understand by the statement that two quantities are incommensurable?

Prove that the side and diagonal of a square are incommensurable.

Collect into groups which are mutually commensurable the following numbers:

$$\tfrac{1}{2},\ \sqrt{2},\ \cdot\dot{6},\ \pi,\ 90,\ \sqrt{8},\ \frac{2}{\pi},\ 3\tfrac{1}{7}.$$

How can you compare the ratio of two incommensurables with that of two other incommensurables, *e.g.* $\sqrt{2} : \sqrt{3}$ and $\sqrt{5} : \sqrt{7}$?

5. Prove that the areas of similar rectilinear figures are in the duplicate ratio of their homologous sides.

ABC is a triangle and DE, FG, two parallels to BC, cut off $AD = \frac{3}{5}AB$, $BF = \frac{1}{5}AB$. Prove that the areas ADE, $BFGC$ are equal.

6. Prove that the rectangle under the segments of any chord of a circle drawn through a given point is constant.

Define the power of a circle with respect to a point. Prove that the locus of a point with respect to which the powers of two given circles are in constant ratio, is a circle.

7. A point P is taken within a circle; prove that the locus of the poles of all chords through P is a straight line.

APB is a chord through P. Construct the harmonic conjugate to P with respect to A, B.

8. State and prove Menelaus' Theorem and the converse.

Deduce from it Ceva's Theorem by the help of a complete quadrilateral.

9. Find the coordinates of the centroid G of any three given points A, B, C.

Prove that if O is any other point

$$\triangle OGA + \triangle OGB + \triangle OGC = 0.$$

10. Find the coordinates of a point which divides in a given ratio the line joining two given points.

A line $OPQR$ is drawn through O, meeting a circle in QR and the polar of O with respect to the circle O in P. If the coordinates of O, P, Q, R be respectively (x_1, y_1), (x_2, y_2), (x_3, y_3), (x_4, y_4), prove that

$$x_4 = \frac{x_1x_3 + x_2x_3 - 2x_1x_2}{2x_3 - x_1 - x_2}, \quad y_4 = \frac{y_1y_3 + y_2y_3 - 2y_1y_2}{2y_3 - y_1 - y_2}.$$

11. Prove that the area of a triangle OAB is $\frac{1}{2}(x_1y_2 - x_2y_1)$ where (x_1, y_1), (x_2, y_2) are the coordinates of A, B.

Explain the convention by which the sign is fixed.

Find the area of the figure $ABCD$ where the coordinates of A, B, C, D are respectively

$$(2, 2), \ (3, 4), \ (5, 11), \ (7, 5).$$

12. Find the condition that the two straight lines $ax + by + c = 0$, $a'x + b'y + c' = 0$, should be (i) parallel, (ii) perpendicular.

Prove that the four points $(3, 4 + \sqrt{3})$, $(4 + \sqrt{3}, 5)$, $(5, 4 - \sqrt{3})$, $(4 - \sqrt{3}, 3)$ are the corners of a square, and find the equations of its diagonals.

13. Prove that the straight line $y = mx + c\sqrt{(1 + m^2)}$ is a tangent to the circle $x^2 + y^2 = c^2$.

Prove that the equation of the inscribed circle of the triangle formed by the two axes and the line $x/p + y/q = 1$ is

$$(p + q + r)^2(x^2 + y^2) - 2pq(p + q + r)(x + y) + p^2q^2 = 0,$$

where

$$r^2 = p^2 + q^2.$$

SECOND PAPER. THREE HOURS.

(NOTE.—*Candidates may obtain full marks by doing correctly about* TWO-THIRDS *of this paper.*)

1. Find in what case the solution of the two simultaneous equations

$$ax + by + c = 0, \quad px + qy + r = 0$$

is indeterminate.

Solve the equations,

$$\begin{aligned} x + 2y + z + 2w &= a, \\ 2x + y + 2z + w &= b, \\ x + 2y - z - 2w &= c, \\ 2x - y + 2z - w &= d. \end{aligned}$$

2. Find the meaning that must be attached to the symbols $x^{\frac{2}{3}}$, x^0, x^{-2}, where x must be real.

Resolve into four surd factors $x^2+y^2+z^2-2yz-2zx-2xy$ and into three

$$\frac{\xi}{\eta}+\frac{\eta}{\zeta}+\frac{\zeta}{\xi}-3.$$

3. Prove that if x varies as y when z is constant, and varies as z when y is constant, then when both y and z vary, x varies as yz.

The sides of a rectangle are a, b. Determine those of a second rectangle of double the perimeter and double the area.

4. Sum the following series:

$$\text{(i) } 1\,.\,3+2\,.\,5+3\,.\,7+\ldots\,;$$
$$\text{(ii) } 2+5x+8x^2+11x^3+\ldots\,;$$
$$\text{(iii) } \Sigma(a^n+\beta^n)x^n,$$

where a, β are the roots of $0=1-px+qx^2$, the first two being taken to n terms, and the third to infinity.

5. Examine the number of permutations all together of n things of which p are of one kind, q of another, and the rest are all different.

The circumference of a circle is divided into n arcs; find the number of different ways of marking m points upon these arcs, any number of the points being allowed to fall upon any of the arcs.

6. If $(x+a_1)(x+a_2)\ldots(x+a_n)\equiv x^n+s_1x^{n-1}+s_2x^{n-2}+\ldots+s_n$, determine the value of s_1, s_2, ... in terms of a_1, a_2, ... a_n.

Deduce the expansion of $(x+a)^n$.

Show by ordinary involution that

$$\sqrt{(1+x)}=1+\tfrac{1}{2}x-\tfrac{1}{8}x^2+\tfrac{1}{16}x^3-\tfrac{5}{128}x^4+\ldots,$$

and write down the n^{th} term of this series.

7. Define the terms *logarithm*, *base*, *mantissa*.

Prove that $\log(m^p/n^q)=p\log m-q\log n$.

Find the number whose logarithm is 1·25 to base 7.

Find to the nearest minute the two smallest positive angles satisfying the equation $3{\cdot}417\cos x-2{\cdot}229\sin x=3{\cdot}894$.

8. Make as carefully as you can upon the same figure graphs of $\tan x$ and $\cot x$.

Show how these illustrate the equations:

$$\text{(i) } \cot x=\tan\left(\frac{\pi}{2}-x\right), \quad \text{(ii) } \tan(x+n\pi)=\tan x.$$

Read from your graph the circular measure of $\tan^{-1}(1{\cdot}3)$, and verify the result from the tables.

Prove $\operatorname{cosec} 2x=\tfrac{1}{2}(\tan x+\cot x)$ and derive the graph of $\operatorname{cosec} 2x$.

9. Prove for all values of the angles A, B

$$\sin(A+B)=\sin A\cos B+\cos A\sin B.$$

Deduce the expression for $\cos(A-B)$.

Prove that if $A+B+C=180^\circ$,

$$\text{(i)}\ \sin 2A+\sin 2B+\sin 2C=4\sin A\sin B\sin C;$$

$$\text{(ii)}\ \sin 2B\cos 2C+\sin 2C\cos 2A+\sin 2A\cos 2B$$
$$=2\sin A\sin B\sin C+2\sin(B-C)\sin(C-A)\sin(A-B).$$

10. Show that when x is given there are two values for $\tan(\frac{1}{2}\tan^{-1}x)$, whether we find them algebraically or geometrically.

Prove that under certain limitations

$$\sin^{-1}x+\sin^{-1}\sqrt{(1-x^2)}=\frac{\pi}{2},$$

and find its value in the other cases.

11. Prove that in any triangle,

$$a=b\cos C+c\cos B.$$

With the help of the parallel expression for b prove that

$$\frac{\sin A}{a}=\frac{\sin B}{b}=\frac{\sin C}{c}.$$

Prove that

$$b\cos^2\frac{C}{2}+c\cos^2\frac{B}{2}=c\cos^2\frac{A}{2}+a\cos^2\frac{C}{2}=a\cos^2\frac{B}{2}+b\cos^2\frac{A}{2}.$$

12. Prove that in any triangle,

$$\text{(i)}\ R=abc/4\Delta;\quad \text{(ii)}\ r=4R\sin\frac{A}{2}\sin\frac{B}{2}\sin\frac{C}{2}.$$

Find the in radius of the triangle of which the sides are 32·24, 57·16, 46·69.

13. Prove that the area of a triangle in terms of its sides is equal to $\sqrt{\{s(s-a)(s-b)(s-c)\}}$ where $2s=a+b+c$.

Prove that if α, β, γ are the lengths of the medians of the triangle and $2\sigma=\alpha+\beta+\gamma$, the area of the triangle may be expressed

$$\tfrac{4}{3}\sqrt{\{\sigma(\sigma-\alpha)(\sigma-\beta)(\sigma-\gamma)\}}.$$

NATURAL PHILOSOPHY.

FIRST PAPER—Three Hours.

(Note.—*It is requested that not more than* EIGHT *of the following questions be attempted.*)

1. Define the relative velocity of two moving particles and explain how to determine the velocity of one moving particle relative to another.

A man starts to cross a street when the line joining him and an approaching cyclist makes an angle of 30° with the pavement. If the speed of the cyclist is V, show that the man cannot cross in front of the cycle unless his speed is greater than $V/2$, and show by means of a diagram the direction he must pursue supposing his speed is just above this minimum.

2. A particle P is projected in a vertical plane with a velocity V inclined at an angle θ to the horizontal and moves under a constant downward acceleration g. Find expressions for the horizontal and vertical distances of the particle from the point of projection after a time t.

A wheel 2 feet in diameter is rotating at 600 revolutions per minute. Supposing the wheel were to fly in pieces, find the maximum height and the maximum horizontal distance to which a portion of the wheel could be thrown.

3. A particle, mass m, moves with momentum mv, which is numerically, but not directionally, constant. In time t the direction of motion has turned through an angle θ. Show that the average rate of change of momentum is $(2mv \sin \theta/2)/t$, and find its direction. Hence show that if at any instant the direction of motion is turning at angular velocity ω, the rate of production of momentum is $mv\omega$, and is at right angles to the direction of motion and in the plane of turning.

A wheel weighing 100 pounds and revolving at 1000 revolutions per minute has its centre of inertia $\frac{1}{16}$ of an inch from the axis of rotation. Find in pounds weight the force exerted on the axis due to this fault in construction.

4. A pendulum consisting of a small mass suspended by a fine thread hangs from the roof of a railway carriage. Describe how the pendulum behaves (i) when the train is running at uniform speed on a straight line; (ii) when the train is moving on a straight line with uniform acceleration in the direction of motion; (iii) when the train is running at uniform speed round a curve.

If the length of the thread of the pendulum is 6 feet, calculate the deflection in the second case above for an acceleration of 10 feet per second per second.

5. Define the centroid of a system of particles, the masses and positions of which are given. Find the centroid of a uniform semicircular wire.

ABC is a uniform triangular lamina; find a point A' in the triangle such that if $A'BC$ be removed, A' will be the centroid of the remaining portion.

6. Define *Work*, *Energy*, *Power*, and find the number of ergs in one foot-poundal.

[1 pound = 453·6 grams, 1 inch = 2·54 cm.]

A wheel whose radius is 2 feet and radius of gyration 1 foot 6 inches rolls down a plane inclined at 1 vertical to 80 along the slope. Find the angular velocity acquired after rolling from rest 10 feet down the slope. Find also the time taken to roll this distance.

7. Apply the law that action and reaction are equal and opposite to

the problem of the impact of two bodies. Account for the apparent loss of energy which occurs in all cases of impact.

A peg, weighing $\frac{1}{6}$ of a pound, is driven 1 inch horizontally into a wall by a blow from a hammer, of mass 3 pounds, moving horizontally with a speed of 8 feet per second. Supposing the impact to be inelastic, so that the hammer and peg move on together after the impact, find in pounds weight the mean resistance to penetration.

Why is a hammer of large mass, though moving with a low velocity, more effective in driving nails than one of a small mass moving with a high velocity?

8. Define the moment of a force about a point, and prove that the sum of the moments of two intersecting forces about a point is equal to the moment of the resultant force about that point. [Choose the point within the angle between the given forces.]

A rectangular box 4 feet long and 3 feet deep is being carried up an incline by two men who apply vertical forces at the upper and lower edges of the bottom, which is inclined at 30° to the horizontal. Supposing the centre of gravity of the box to coincide with its centre of figure, find what proportion of the total weight is supported by each man.

9. State the conditions which must be satisfied by the forces acting upon a rigid body, in order that the body may be in equilibrium.

A uniform rod of mass 20 pounds rests with one end on a rough horizontal plane and the other on a smooth plane inclined at an angle of 60° to the horizontal. If the rod is in a vertical plane containing the line of greatest slope and makes an angle of 30° with the horizontal plane, find in poundals the frictional force at the lower end of the rod.

10. Define shape modulus and bulk modulus, specifying the strain and stress in each case.

Assuming that the unital diminution of volume of water per atmosphere of pressure within the range from 1 to p atmospheres is given by $\frac{0 \cdot 3042}{6000+p}$, no matter how great p may be, show that water cannot be reduced to less than about 0·7 of its original volume by any pressure however great.

11. What is a "perfect fluid"? Explain what is meant by the pressure at a point in a fluid, and prove that the pressure at a point in a perfect fluid is equal in all directions.

An equilateral triangular plate is immersed in water with its plane vertical and with one side in the free surface. If the length of each side of the triangle is 150 cm., find the magnitude and point of application of the resultant thrust over one face of the plate.

12. Define the surface-tension of a liquid film and describe various phenomena which show the existence of this surface tension.

Find the pressure of the air within a soap-bubble 2 cm. in diameter, if the surface tension of soap solution be taken as 45 dynes per centimetre.

SECOND PAPER—Three Hours.

(Note.—Eight, *and not more than eight, of the following questions to be attempted.*)

1. Define the mean coefficient of linear expansion and the mean coefficient of cubical expansion of a substance over any range of temperature. Show that for a crystalline substance the mean coefficient of cubical expansion is equal to the sum of the mean values of the principal coefficients of linear expansion.

A rod of platinum and a rod of copper are laid side by side with one end of each clamped together. If the length of the platinum rod is 8 feet, find the length of the copper rod in order that the difference in the two lengths should remain constant. [Coefficient of linear expansion of platinum = 0·0000085; coefficient of linear expansion of copper = 0·000017.]

2. Explain the "method of mixtures" in calorimetry, stating the precautions which have to be taken to ensure an accurate result.

A solid weighing 100 grams is cooled by a freezing mixture to 0° F. and then dropped into a calorimeter of water-equivalent 5 grams, containing 55 grams of water at 71° F. The temperature of the calorimeter and its contents falls to 60° F. Find the specific heat of the solid.

3. A number of gases which have no chemical action on one another are mixed in a closed vessel. State the law which gives the pressure existing within the vessel.

Three litres of air at standard atmospheric pressure and 0° C. are enclosed within a vessel of 2 litres capacity which contains a little water. The vessel and contents are then raised to a temperature of 40° C., and the water allowed to evaporate until the space is saturated with aqueous vapour. Find, neglecting the expansion of the vessel, the final pressure within the vessel. [Saturation pressure of water vapour at 40° C. = 55 mms. of mercury.]

4. Distinguish between conduction and convection of heat. Define conductivity of a substance for heat.

In an experiment carried out using the "guard ring" method one face of the slab was kept in contact with steam at 100° C. and the other in contact with ice at 0° C. Thermo-couples imbedded in the slab at a distance apart of 1 cm. showed a temperature difference of 99.5° C. It was found that the heat conducted across the central portion, which had an area of 100 sq. cms, sufficed to melt one kilogramme of ice per minute. Find the conductivity of the material for heat.

5. The velocity of sound in air does not vary with the density if the temperature remains the same, but it is greater in air of a high than in air of a low temperature. Give reasons for these facts.

Explain how motion of the source of sound, or of the observer, or of both, may produce an apparent alteration of the pitch of a note.

6. Explain the principle of the kaleidoscope. Draw careful diagrams showing the positions of all the images of a luminous point when the angle between the mirrors is 60°.

7. Define the *principal focus* and the *focal length* of a lens. What are the defects called spherical aberration and chromatic aberration, and how do they arise?

A small object is placed in front of a lens and a real image is formed at a distance of 130 cms. from the object. On moving the lens further away from the object through a distance of 40 cms. a second image is formed at the same place as the first. Show that the focal length of the lens is 29·4 cms.

8. Describe, with the aid of sketches, the action of the human eye as an optical instrument.

To what are the defects known as short sightedness, long sightedness and astigmatism due, and how are they corrected?

9. Describe carefully the appearance and production of the prismatic spectrum of white light. What arrangement of apparatus is necessary for the production of a pure spectrum?

When a pure spectrum of sunlight is obtained it is seen to be crossed by a series of dark lines. How is the presence of these lines explained, and in what manner do they furnish information as to the constituents of the sun's atmosphere?

10. Define the *poles*, *axis* and *magnetic moment* of a bar magnet.

Describe carefully any experiments by which it can be shown that the magnetic force at a point due to a magnetic pole varies inversely as the square of the distance of the point from the pole.

11. Describe some form of constant voltaic cell, and give a general explanation of the action of the two liquids.

A current has to be sent by a battery of 20 cells, of E.M.F. 2 volts in each case, through an external resistance of 6 ohms. If the internal resistance of each cell is 1·5 ohms, find the current produced in the circuit when

(1) the cells are all in series,

(2) when the cells are arranged in four parallel series of 5 cells each.

(3) when the cells are arranged in five parallel series of 4 cells each.

12. Describe the phenomena of the induction of currents by the motion of a conductor across the lines of force of a magnetic field.

A metal rod 1 metre long is held horizontally with its length magnetic east and west, and is then allowed to fall from rest. Find in volts the difference of potential between the extremities of the rod five seconds from the start of the motion. [Earth's horizontal magnetic force = ·16 c.g.s.]

SPECIAL GRADUATING COURSE.

FIRST PAPER—THREE HOURS.

(NOTE.—EIGHT, *and not more than eight, of the following questions to be attempted. Of these,* FOUR *must be selected from Part I.*)

PART I.

1. State the third law of motion and illustrate its meaning by examples.

A man standing on a lift carries a spring balance to which a mass of 10 pounds is attached. What pull on the spring will be indicated (i) when the lift is ascending with an acceleration of 15 feet per per second per second; (ii) when the lift is descending with an acceleration of 10 feet per second per second?

2. A pendulum consisting of a small mass suspended by a fine thread hangs from the roof of a railway carriage. Describe how the pendulum behaves (i) when the train is running at uniform speed on a straight line; (ii) when the train is moving on a straight line with uniform acceleration in the direction of motion; (iii) when the train is running at uniform speed round a curve.

If the length of the thread of the pendulum is 6 feet, calculate the deflection in the second case above for an acceleration of 10 feet per second per second.

3. Write down the defining equations of the centroid of a system of particles.

Show that the total momentum of a system of particles in any direction is equal to the total mass of the system multiplied by the velocity of the centroid in that direction.

4. State the conditions which must be satisfied by the forces acting upon a rigid body, in order that the body may be in equilibrium.

A uniform rod of mass 20 lbs. rests with one end on a rough horizontal plane, and the other on a smooth plane, inclined at an angle of 60° to the horizontal. If the rod is in a vertical plane containing the line of greatest slope of the inclined plane, and makes an angle of 30° with the horizontal plane, show that the force of friction between the lower end of the rod and the horizontal plane is about 277 poundals.

5 Define *pressure at a point* in a fluid. State and prove the law according to which pressure varies with depth in a heavy liquid.

An equilateral triangular plate is immersed in water with its plane vertical and with one side in the free surface. If the length of each side of the triangle is 150 cms., find the thrust over one face of the plate.

PART II.

6. Define the mean coefficient of cubical expansion of a substance over any range of temperature. Show that in an isotropic material the coefficient of cubical expansion is approximately three times the coefficient of linear expansion.

A slab of copper weighing 500 grammes is placed in a glass beaker, which is filled up with water, the whole being at a temperature of 10° C. The volume of the water is 60 cubic cms. The beaker and contents are then heated up to 60° C. Find in grammes the quantity of water which overflows.

[Assume :

Density of water at 10° C. = 1 gramme per cubic cm.
,, copper ,, = 8·9 grammes ,,
Coefficient of cubical expansion of copper = ·000050
,, ,, ,, glass = ·000027.
,, ,, ,, water = ·00027.]

7. Explain the term "mechanical equivalent of heat." A mass of metal is surrounded by ice at 0° C., and a borer is driven into it for half an hour by an engine working at the rate of 1 horse power. Assuming that no heat is lost and that the metal and borer are finally at the temperature of the ice, find the mass of ice melted. [Joule's equivalent = 42×10^{6} ergs per calorie; 1 horse power = rate of working of an agent which performs 746×10 ergs per second.]

8. Define conductivity of a substance for heat. How may this physical constant be determined for a slab of highly conducting material?

Find how much heat would be conducted in one hour through a copper plate 1 square metre in section and having a thickness of 2 cms., if the opposite faces were at temperatures which differed by 10° C. [Conductivity of copper = 1·1 C.G.S. units.]

9. State the elementary laws of reflection and refraction of light. Describe, with the aid of a diagram, the phenomenon of total reflection.

Explain the action of a total reflection prism in turning a ray of light through 90° and describe the functions of the system of prisms in a modern field glass.

10. Prove the relation $\frac{1}{u} + \frac{1}{v} = (\mu - 1)\left(\frac{1}{R_1} + \frac{1}{R_2}\right)$ for a convex lens.

The radii of curvature of the surfaces of a double convex lens are 10 inches and 14 inches respectively. If the refractive index of the material from which the lens is composed is 1·5, find the focal length of the lens.

11. Define *pole strength* and *magnetic moment* of a bar magnet. How would you determine experimentally the pole strength of a magnet?

Or, as an alternative,

How could you experimentally compare the magnetic moments of two bar magnets?

12. What different physical effects are produced by a current of electricity? On which of these would you found a method of current measurement, and how would you do so? In what manner would the other effects quantitatively depend on the current thus measured?

13. What is the general nature of the magnetic field produced by a current in a wire, (1) when the wire is infinitely long and straight, (2) when it is bent into a circle.

A circular coil of wire has a mean radius of 15 cms. and contains 10 turns. It is set up with its plane in the magnetic meridian, at a place where the horizontal intensity of the earth's magnetic field is 0·16 C.G.S. units. Find the deflection which would be produced in a small magnetic needle, horizontally pivotted at the centre of the coil, by a current of 1 ampere.

SECOND PAPER—Three Hours.

Note.—It is requested that not more than EIGHT *of the following questions be attempted.*

1. Mention various precautions to which attention should be paid in using an accurate balance. Show, by means of a diagrammatic sketch the forces acting on a balance beam when in equilibrium with the pointer deflected.

A piece of gold weighing 5·98 grams is found to weigh 5·67 grams when immersed in water. Find the specific gravity of gold and, supposing the weights given above to be correct to half a milligram, estimate the percentage accuracy of your result.

2. State the principle of Archimedes, and give a clear theoretical proof of the principle.

A Nicholson's hydrometer when floating in water required a weight of 10 grams, in the upper pan, to sink it to the mark on the stem. When placed in another liquid 2 grams placed in the upper pan were sufficient to sink the hydrometer to a point 4 centimetres further up the stem than the mark. The hydrometer weighs 50 grams and its stem is a wire 2 millimetres in diameter. Find the specific gravity of the liquid.

3. Describe a Fortin barometer, and explain carefully how you would take a barometer reading, and calculate therefrom the pressure of the atmosphere in dynes per square centimetre. How may the 'error due to parallax' be avoided in reading the barometer, and how is the height of the mercurial column affected (i) by changes in temperature; (ii) by narrowness of the tube; (iii) by differences in the value of g.

4. Define carefully 'freezing point' and 'boiling point' on a mercury-in-glass thermometer. What is meant by the 'stem correction' of a thermometer reading?

A Fahrenheit thermometer with an accurately graduated stem is immersed up to a certain mark in pure melting ice, and a reading 32·4 is obtained. The thermometer is then immersed up to the same mark in steam from water boiling under a pressure of 77·5 centimetres of mercury, and the thermometer registers 210·5 degrees. Draw a graph from which approximate corrections may be obtained for all readings of the thermometer between 0° and 250° F., the thermometer being always immersed up to the same mark on the stem. [The temperature of saturated steam alters by about 0·65 F. for a change in atmospheric pressure of 1 cm. of mercury.]

5. Describe how to obtain the specific heat of a solid by the method of mixtures, mentioning various sources of error in the experiment.

A solid weighing 100 grams is cooled by a freezing mixture to 0° F. and then dropped into a calorimeter of water-equivalent 5 grams, containing 55 grams of water at 71° F. The temperature of the calorimeter and its contents falls to 60° F. Find the specific heat of the solid.

6. Explain the statement that the latent heat of steam is 536 on the C.G.S. system of units.

Vapour from a liquid whose boiling point is 78°·5 C. is condensed in a calorimeter of water-equivalent 20 grams containing 380 grams of water at the room temperature of 15° C. On disconnecting the calorimeter a maximum temperature of 32·5° C. is observed two minutes after the vapour first entered, and the calorimeter is then found to be cooling at the rate of half a degree per minute. On weighing the calorimeter it is found that 30 grams of vapour have been condensed. The specific heat of the liquid being known to be 0·6, find its latent heat of vaporisation.

7. Derive the relation $V = N\lambda$, connecting the velocity of sound-wave propagation, the frequency, and the wave length of a note.

A tube (diameter $d = 3$ inches), closed at one end by a moveable piston, resounds to forks of pitch 264, 330, 396, and 572 when the length of air in the tube is 11·6, 9·1, 7·4, and 5·3 inches respectively; the velocity of sound in air being 1108·8 feet per second. Plot a graph showing the relation between the wave length (λ) of a note and the length (l) of the resounding air column and prove that the relation may be expressed by the formula $\lambda = c(l + ad)$, where c and a are constants. Find c and a from your graph.

8. What is meant by the candle-power of a source of light? Describe any form of photometer.

If light from the moon is found to produce the same illumination on a screen as a standard candle at a distance of 4 feet, what is the candle-power of the moon's light. The distance between the moon and the earth is about 240,000 miles.

9. Show by means of a careful sketch a pencil of light diverging from a point and entering the eye after reflection from a plane mirror. Explain the parallax method of finding the position of the image of a pin placed in front of a narrow strip of silvered glass.

Draw a diagram showing the position of all the images of a luminous point placed in the angle between two mirrors set at right angles to one another.

10. Explain how to find the index corrections for the carriers on an optical bench. How would you find the focal length of a convex lens, using only the object and lens carriers and a telescope focussed for parallel light.

A small object being placed at a distance of 45 cm. from a lens a real image is formed at a distance of 130 cm. from the object. On moving the lens further away from the object through a distance of 40 cm. a second image is formed at the same place as the first. Show that the focal length of the lens is 29·4 cm.

11. Describe two methods by which the magnetic field surrounding a bar magnet may be investigated. Show by means of a careful sketch the nature of the horizontal field surrounding a short bar magnet placed horizontally with its *N* pole pointing north.

In controlling a suspended-needle galvanometer, how should the control-magnet be placed so as to make the galvanometer as sensitive as possible?

12. Define the electrical resistance of a homogeneous conductor. How does the resistance of a conductor vary with its dimensions?

Find the resistance of 1 metre of copper wire 1 millimetre in diameter. [The resistance of a rod of copper 1 cm. long and having a sectional area of 1 sq. cm. is $1{\cdot}6 \times 10^{-6}$ ohms.]

CHEMISTRY—THREE HOURS.

(*Engineering Candidates answer* SIX *questions. Other Candidates answer* SIX *questions, of which one at least must be chosen from the last two.*)

1 Give a succinct account of the various methods you know by which chlorine may be prepared from sodium chloride. Describe its important properties and state the products formed by its action on (*a*) a cold solution, and (*b*) a hot solution, of potassium hydroxide.

2. You are given six vessels containing respectively, nitrous oxide, nitric oxide, hydrogen, oxygen, ammonia, and acetylene. How would you identify these gases? Give equations.

3. What is meant by the terms "hard" and "soft" as applied to water? What are the two classes of "hard" water By what means can a "hard" water be softened, and what is Clark's method for doing this? Give equations.

4. Describe the different known varieties of sulphur, and state how they may be obtained. Calculate the volume of sulphur dioxide that would be formed at 25° C. and 740 mm. pressure by the combustion of 20 grams of sulphur. What volume of oxygen under the same conditions would be required for this combustion? [S=32; O=16.]

5. Describe any method you would adopt for the determination of the atomic weight of an element. Of what value is a knowledge of the specific heat of the element in this connection? The specific heat of indium is 0·0569, and indium chloride contains 48·3 per cent. of chlorine. Deduce the atomic weight of indium.

6. Describe the industrial preparation of lead from one of its ores. State how silver may be separated from lead in the extraction of the latter from an argentiferous ore,

7. Describe two ways by which urea may be prepared. How may the quantity of urea in a sample of that substance be estimated?

8. By what two methods may diethyl ether be prepared? Give the names and *graphic* formulae of all the compounds you know possessing the molecular formula $C_4H_{10}O$.

BOTANY—THREE HOURS.

1. What is meant by carbon-assimilation (photo-synthesis)? Give an account of the essential features of the process, and of the conditions under which it proceeds.

2. Describe in detail the structure of a root of a Dicotyledon, and explain how it is structurally suited to its function.

3. Illustrate by examples from the British Flora various methods of vegetative propagation in Phanerogams: explain its biological importance.

4. Give a full and detailed account of the structure of the flower and the fruit in some two selected species of British Gamopetalae.—The description should not extend into microscopical detail.

5. Describe fully the structure, reproduction, and life-history of *Fucus*.

6. Give an account of the ways in which Ferns increase in numbers.

ASTRONOMY—See p. 682.

GEOLOGY—See p. 688.

ZOOLOGY—See p. 690.

D.—DEPARTMENT OF HISTORY AND LAW

HISTORY.

FIRST PAPER.—THREE HOURS.

(*Candidates are advised to attempt* SIX *questions.*)

A.

1. Give some account of the Barbarian invasions, illustrating your answer with a map.

2. Give an outline of the relations of Justinian (*a*) with Italy, (*b*) with the Papacy.

3. Explain the political condition of Spain at the end of the sixth century, and show the territorial divisions on a map.

4. Write short lives of (*a*) Theodoric and (*b*) Charles Martel.

B.

5. Estimate the influence of Charles the Great (*a*) upon the expansion of the Frankish power and (*b*) upon Europe generally.

6. Give some account of the Scandinavian raids in France and in the British Isles.

7. Sketch the career of Basil the Macedonian.

8 Give some account of the Papacy in the ninth century.

C.

9. State the causes which led to the revival of the Western Empire by Otto I.

10. Trace the growth of the rivalry between the Papacy and the Empire after the death of Otto III. and show how the quarrel between Henry IV. and Gregory VII. was complicated by affairs in Saxony.

11. What were the causes of the Crusading movement and what were its effects upon Western Europe?

12. Write short notes on: the Partition of the Frankish Empire; the Hungarian raids on Germany; the rise of the House of Capet: the achievements of Roger and Robert Guiscard.

SECOND PAPER.—THREE HOURS.

(*Candidates are advised to attempt* SIX *questions.*)

A.

1. Draw a map of the possessions of Henry II. in France, and trace their gradual absorption into the domain of the Crown.

2. Give some account of (*a*) the quarrel between Frederick Barbarossa and Henry the Lion and (*b*) the crusade of Frederick II.

3. Explain the ambitions (foreign and domestic) of the Kings of France in the beginning of the fourteenth century.

4 Sketch the career of Pope Boniface VIII.

B.

5. Give some account of the rise of Venice.

6. What do you know of the institution of the Franciscan Order and of its influence upon Europe?

7. Trace the rise of the Swiss Confederation.

8. Write short notes on (*a*) the union of the Spanish Kingdoms, (*b*) the various meanings of the word "Burgundy."

C.

9. Give some account of the part played by the Visconti in the history of Milan.

10. Estimate the effect of the "Babylonian Captivity" upon the position of the Papacy.

11. What were the causes of the Hundred Years' War between England and France? What had England won and lost at the date of the death of Edward III.?

12. Give some account of the causes which led to the Fall of Constantinople.

II. FOR DEGREE WITH HONOURS.

A.—GROUP OF CLASSICS.

LATIN TRANSLATION—THREE HOURS.

I. Translate :

1. Virgil, *Georg.* iii. 517—530.
Give an alternative explanation of line 518.

2. Virgil, *Aen.* iii. 410—427.
Comment on the grammar of the last line.

3. Hor., *Sat.* i. ii. 12—24.
To what does line 20 refer?

4. *Epist.* ii. i. 168—181.

II. Translate two of the following sections : Lucretius, ii. 150—164, and comment on line 159.
Or, Lucretius, iii. 417—430, and comment on line 421.
And Plautus, *Captivi*, 172—187.

2. Juvenal, xii. 37—64, and explain the principal allusions.

3. Persius, i. 120—134, and write *short* explanatory notes.
And Martial, viii. 52.

4. Catullus, lxiii. 74—90, and explain the metre briefly.
And Propertius, i. xix. 11—24.

III. Translate :

1. Livy, i. 55 ; *or*, Livy, xxiii. 30.

2. Cicero, *Philipp.* v. 3. 6—8 ; *or*, Cicero, *Ep. ad Att.* vii. 20.

3. Tacitus, *Ann*, xiv. 7.

LATIN PROSE—THREE HOURS.

Modern England is too prone to present the spectacle of a person who is enormously delighted because he has not got the contrary disadvantages to his own. The Englishman is always saying "My house is not damp" at the moment when his house is on fire. The Englishman is always saying, "I have thrown off all traces of anæmia" in the middle of a fit of apoplexy. Let us always remember that if an Englishman wants to swindle English people, he does not dress up in the uniform of a soldier. If an Englishman wants to swindle English people he would as soon think of dressing up in the uniform of a messenger boy. Everything in England is done unofficially, casually, by conversations and cliques. The one Parliament that really does rule England is a secret Parliament ; the debates of which must not be published—the Cabinet. The debates of the Commons are sometimes important ; but only the debates in the Lobby, never the debates in the House. Journalists do control public opinion ; but it is not controlled by the arguments they publish—it is controlled by the arguments between the editor and sub-editor, which they do not publish. This casualness is our English vice. It is at once casual and secret. Our public life is conducted privately. Hence it follows that if an English swindler wished to impress us, the last thing he would think of doing would be to put on a uniform. He would put on a polite slouching air and a careless, expensive suit of clothes; he would stroll up to the Mayor, be so awfully sorry to disturb him, find he had forgotten his card-case, mention, as if he were ashamed of it, that he was the Duke of Mercia, and carry the whole thing through with the air of a man who could get two hundred witnesses and two thousand retainers, but who was too tired to call any of them. And if he did it very well I strongly suspect that he would be as successful as the indefensible Captain at Koepenick.

G. K. Chesterton, *All Things Considered.*

LATIN GENERAL PAPER—Two Hours.

A. Unseen Translation.

Translate :

1. Caerulea taurus colla sublimis gerens
Erexit altam fronte viridanti iubam;
Stant hispidae auris, orbibus varius color,
Et quem feri dominator habuisset gregis
Et quem sub undis natus: hinc flammam vomunt
Oculi, hinc relucent caerula insignes nota;
Opima cervix arduos tollit toros
Naresque hiulcis haustibus patulae fremunt;
Musco tenaci pectus ac palear viret,
Longum rubente spargitur fuco latus;
Tum pone tergus ultima in monstrum coit
Facies et ingens belua immensam trahit
Squamosa partem. Talis extreme mari
Pistrix citatas sorbet aut frangit rates.
Tremuere terrae, fugit attonitum pecus
Passim per agros nec suos pastor sequi
Meminit iuvencos; omnis e saltu fera
Diffugit, omnis frigido exsanguis metu
Venator horret. Solus immunis metu
Hippolytus artis continet frenis equos
Pavidosque notae vocis hortatu ciet.
Est alta ad agros collibus ruptis via,
Vicina tangens spatia suppositi maris;
Hic se illa moles acuit atque iras parat.
Ut cepit animos seque praetemptans satis
Prolusit irae, praepeti cursu evolat,
Summam citato vix gradu tangens humum,
Et torva currus ante trepidantes stetit.

Seneca, *Phaedra,* 1036—1063.

2. Adhibita vero exercitatione et arte, ut oculi pictura teneantur, aures cantibus, quis est, quin cernat, quanta vis sit in sensibus? Quam multa vident pictores in umbris et in eminentia, quae nos non videmus! quam multa, quae nos fugiunt in cantu, exaudiunt in eo genere exercitati! qui primo inflatu tibicinis Antiopam esse aiunt, aut Andromacham, quum id nos ne suspicemur quidem. Nihil necesse est de gustatu et odoratu loqui; in quibus intelligentia, etsi vitiosa, est quaedam tamen. Quid de tactu, et eo quidem, quem philosophi interiorem vocant, aut doloris aut voluptatis? (in quo Cyrenaici solo putant veri esse iudicium, quia sentiatur.) Potestne igitur quisquam dicere, inter eum, qui doleat, et inter eum, qui in voluptate sit, nihil interesse? aut, ita qui sentiat, non apertissime insaniat? Atqui qualia sunt haec, quae sensibus percipi dicimus, talia sequuntur ea, quae non sensibus ipsis percipi dicuntur, sed quodam modo sensibus: ut haec: illud est album, hoc dulce, canorum illud, hoc bene olens, hoc asperum. Animo iam haec tenemus comprehensa, non sensibus. Ille deinceps equus est, ille canis. Cetera series deinde sequitur, maiora nectens, ut haec, quae quasi expletam rerum comprehensionem amplectuntur, Si homo est, animal est mortale, rationis particeps. Quo e genere nobis notitiae rerum imprimuntur; sine quibus nec intelligi quidquam, nec quaeri aut disputari potest.

CICERO, *Acad. Priora*, II vii 20, 21.

B. HISTORY AND LITERATURE.

(*Not more than* FIVE *questions should be attempted.*)

1. What evidence is there as to the origin of the Roman plebs?

2. Discuss the connexion of Roman and Etrurian culture.

3. Write a short history of the praetorian guard and its influence.

4. Outline the constitutional history of the consulate.

5. Discuss the personal and autobiographical element in some of the Latin authors you have studied.

6. Compare the versification of Vergil and Lucretius, *or* of Horace and Catullus.

7. How far is the original character of Latin satire traceable in Horace, Juvenal and Persius?

8. State what is supposed to have been the pronunciation of Latin in Cicero's day, giving any evidence you know.

9. Trace Cicero's influence on the Latin language down to 430.

10. What characteristics distinguish the Spanish Latin poets, Lucan, Martial, Prudentius?

GREEK TRANSLATION—Three Hours.

A. Prepared Books.

Translate :

(*a*) Homer, *Iliad*, XXII. 248—272.

(*b*) Homer, *Odyssey*, XI. 114—137.

(*c*) Aesch., *Agamem.* 122—145.

(*d*) Soph. *Antig.* 249—267.

(*e*) Thucydides, I. 68 *or* Herodotus, VII. 118—119.

(*f*) Plato, *Phaedo*, 112 a—e *or* Plato, *Repub.* IV. 420 c—421 b.

(*g*) Arist. *Poet.* 17, 1455 a 22 *or* Arist. *Politics*, I. 1253 b 23—1254 a 8.

B. Offered Books.

Translate according to your profession from the following :

Homer, *Odyssey*, IV. 87—107 :
ἔνθα μὲν . . . καὶ ἤρατο.

Homer, *Odyssey*, VIII. 166—181 :
ξεῖν', . . . χερσί τ' ἐμῇσιν.

Homer, *Odyssey*, XIII. 31—46 :
ὡς δ' ὅτ' . . . μεταδήμιον εἴη.

Sophocles, *Electra*, 431—452 :
ἀλλ' ὦ φίλη . . . ἠσκημένον.

Sophocles, *Philoctetes*, 701—717 :
εἶρπε γὰρ . . . ἀεὶ προσενώμα.

Euripides, *Medea*, 1156—1170 :
ἡ δ' ὣς . . . χαμαὶ πεσεῖν.

Euripides, *Electra*, 432—451 :
κλειναὶ νᾶες . . . 'Ατρείδαις.

Demosthenes, *c. Meidiam*, § 58—60 (533—4 R.) :
Φέρε δὴ . . . ὀφθῆναι γιγνόμενος.

Demosthenes, *de Corona*, 240—242 :
ἀλλ' εἰ νῦν . . . παράσημος ῥήτωρ.

Thucydides, II. 63—64 :
τῆς τε πόλεως . . . κωλυθῇ.

GREEK TRANSLATION AND COMPOSITION.

Theee Hours.

1. Translate into Greek :

It is difficult for the most wise and upright government to correct the abuses of remote delegated power, productive of unmeasured wealth, and protected by the boldness and strength of the same ill-got riches. These abuses, full of their own wild, native vigour, will grow and flourish under mere neglect. But where the supreme authority, not content with winking at the rapacity of its inferior instruments, is so shameless and corrupt as openly to give bounties and premiums for disobedience to its laws; when it will not trust to the activity of avarice in the pursuit of its own gains; when it secures public robbery by all the careful jealousy and attention with which it ought to protect property from such violence; the commonwealth then is become totally perverted from its purposes; neither God nor man will long endure it; nor will it long endure itself. In that case there is an unnatural infection, a pestilential taint fermenting in the constitution of society, which fever and convulsions of some kind or other must throw off; or in which the vital powers, worsted in an unequal struggle, are pushed back upon themselves, and, by a reversal of their whole functions, fester to gangrene, to death.

BURKE.

2. Translate into English:

περὶ δ᾽ αἴθωνος δορᾶς
μαρνάμεθ᾽ ἐνδυκέως
  Κουρῆσι μενεπτολέμοις.
ἔνθ᾽ ἐγὼ πολλοῖς σὺν ἄλλοις
  Ἴφικλον κατέκτανον
ἐσθλόν τ᾽ Ἀφάρητα, θοοὺς μάτρωας· οὐ γὰρ
  καρτερόθυμος Ἄρης
κρίνει φίλον ἐν πολέμῳ,
  τυφλὰ δ᾽ ἐκ χειρῶν βέλη
ψυχαῖς ἔπι δυσμενέων φοι-
  τᾷ θάνατόν τε φέρει
  τοῖσιν ἂν δαίμων θέλῃ.
ταῦτ᾽ οὐκ ἐπιλεξαμένα
  Θεστίου κούρα δαΐφρων
μάτηρ κακόποτμος ἐμοὶ
  βούλευσεν ὄλεθρον ἀτάρβακτος γυνά.
καῖέ τε δαιδαλέας
  ἐκ λάρνακος ὠκύμορον
φιτρὸν ἐγκλαύσασα· τὸν δὴ
  μοῖρ᾽ ἐπέκλωσεν τότε
ζωᾶς ὅρον ἁμετέρας ἔμμεν. τύχον μὲν
  Δαϊπύλου Κλύμενον
παῖδ᾽ ἄλκιμον ἐξαναρί-
  ζων, ἀμώμητον δέμας,
πύργων προπάροιθε κιχήσας·
  τοὶ δὲ πρὸς εὐκτιμέναν
  φεῦγον ἀρχαίαν πόλιν
Πλευρῶνα. μίνυνθα δέ μοι ψυχὰ γλυκεῖα·
  γνῶν δ᾽ ὀλιγοσθενέων.
αἰαῖ· πύματον δὲ πνέων δάκρυσα τλάμων
  ἀγλαὸν ἥβαν προλείπων. BACCHYLIDES, V. 124

(*b*) Ὁ δὲ Ἀναξαγόρας, καὶ ὁ Δημόκριτος, καὶ ὁ Ἐμπεδοκλῆς καὶ νοῦν καὶ γνῶσιν ἔχειν εἶπον τὰ φυτά. ἡμεῖς δὲ, τὰ τοιαῦτα ὡς φαῦλα ἀποτρεπόμενοι, τῷ ὑγιεῖ ἐνστῶμεν λόγῳ. λέγομεν οὖν, ὅτι τὰ φυτὰ οὔτε ἐπιθυμίαν, οὔτε αἴσθησιν ἔχουσιν. ἡ γὰρ ἐπιθυμία, οὐκ ἔστιν εἰ μὴ ἐξ αἰσθήσεως· καὶ τὸ τοῦ ἡμετέρου δὲ θελήματος τέλος, πρὸς τὴν αἴσθησιν ἀποστρέφεται. οὐχ εὑρίσκομεν γοῦν ἐν τοῖς τοιούτοις αἴσθησιν, οὔτε μέλος αἰσθανόμενον, οὔτε ὁμοιότητα αὐτοῦ, οὔτε εἶδος διωρισμένον, οὔτε τι ἀκόλουθον τούτῳ, οὔτε τοπικὴν κίνησιν, οὔτε ὁδὸν πρός τι αἰσθητὸν, οὔτε σημεῖόν τι, δι' οὗ ἂν κρίνωμεν ταῦτα αἴσθησιν ἔχειν, καθὼς καὶ σημεῖα δι' ὧν ἐπιστάμεθα ταῦτα καὶ τρέφεσθαι καὶ αὐξάνεσθαι εὑρίσκομεν. οὐδὲ συνίσταται παρ' ἡμῶν τοῦτο, εἰ μὴ διότι τὸ θρεπτικὸν καὶ αὐξητικὸν νοοῦμεν μέρη εἶναι τῆς ψυχῆς. ὁπόταν γοῦν τὸ τοιοῦτο φυτὸν εὑρίσκωμέν τι μέρος ψυχῆς τοιαυτης ἐν ἑαυτῷ ἔχον, ἐξ ἀνάγκης νοοῦμεν καὶ ψυχὴν ἔχειν αὐτό· ὅτε δὲ στερεῖται αἰσθήσεως, τότε αἰσθητικὸν αὐτὸ μὴ εἶναι, μὴ ἐγχωρεῖν οὐ δεῖ· ἡ γὰρ αἴσθησις αἰτία ἐστὶν ἐλλάμψεως ζωῆς.

[Aristotle], *De Plantis*, I. i.

GREEK GENERAL PAPER—Two Hours.

I. Translate and comment briefly on four or more of the following:

(*a*) ἀφρήτωρ ἀθέμιστος ἀνέστιός ἐστιν ἐκεῖνος
ὃς πολέμου ἔραται ἐπιδημίου ὀκρυόεντος. *Iliad*, ix. 63.

(*b*) δεῦτε, δύω μοι ἕπεσθον. ἴδωμ' ὅτιν' ἔργα τέτυκται.
Iliad, xxii. 450.

(*c*) βιάζεται δ' ὁμοσπόροις
ἐπιρροαῖσιν αἱμάτων
μέλας Ἄρης· ὅποι δὲ καὶ προβαίνων
πάχνα κουροβόρῳ παρέξει. Aesch. *Agam.* 1509.

(*d*) παρὰ δὲ Κυανέων πελαγέων διδύμας ἁλὸς
ἀκταὶ Βοσπόριαι ἰδ' ὁ Θρῃκῶν ἄξενος
Σαλμυδησὸς, ἵν' ἀγχίπτολις Ἄρης
δισσοῖσι Φινείδαις
εἶδεν ἀρατὸν ἕλκος
ἀραχθὲν ἐξ ἀγρίας δάμαρτος. Soph. *Antig.* 966.

κυανέων πελάγεων πετρῶν L.

(*e*) καὶ μάλιστα δὴ οἱ περὶ τοὺς ἀντιλογικοὺς λόγους διατρίψαντες οἶσθ' ὅτι τελευτῶντες οἴονται σοφώτατοι γεγονέναι τε καὶ κατανενοηκέναι μόνοι, ὅτι οὔτε τῶν πραγμάτων οὐδενὸς οὐδὲν ὑγιὲς οὐδὲ βέβαιον οὔτε τῶν λόγων, ἀλλὰ πάντα τὰ ὄντα, ἀτεχνῶς ὥσπερ ἐν Εὐρίπῳ. Plato, *Phaedo*, 90 B–C.

Or,

καὶ ἥτις δὴ ἐγγύτατα ἑνὸς ἀνθρώπου ἔχει, οἷον ὅταν που ἡμῶν δάκτυλός του πληγῇ, πᾶσα ἡ κοινωνία ἡ κατὰ τὸ σῶμα πρὸς τὴν ψυχὴν τεταμένη εἰς μίαν σύνταξιν τὴν τοῦ ἄρχοντος ἐν αὐτῇ ᾔσθετό τε καὶ πᾶσα ἅμα ξυνήλγησε μέρους πονήσαντος ὅλη, καὶ οὕτω δὴ λέγομεν ὅτι ὁ ἄνθρωπος τὸν δάκτυλον ἀλγεῖ.

Plato, *Repub.* v. 462.

(*f*) τούτων δὲ τὸ μὲν γινώσκοντα μελλῆσαι καὶ μὴ πρᾶξαι χείριστον· τό τε γὰρ μιαρὸν ἔχει, καὶ οὐ τραγικόν· ἀπαθὲς γάρ. διόπερ οὐδεὶς ποιεῖ ὁμοίως εἰ μὴ ὀλιγάκις, οἷον ἐν Ἀντιγόνῃ τὸν Κρέοντα ὁ Αἵμων. Arist. *Poet.* 1453.

Or,

τὸ δὲ κτῆμα λέγεται ὥσπερ καὶ τὸ μόριον. τό τε γὰρ μόριον οὐ μόνον ἄλλου ἐστὶ μόριον, ἀλλὰ καὶ ὅλως ἄλλου· ὁμοίως δὲ καὶ τὸ κτῆμα.

ARIST. *Polit.* 1254.

II.

(*Not more than* FIVE *of the following questions.*)

1. Consider the working of the safeguards provided under the developed Athenian constitution against hasty action by the Assembly.

Or,

Discuss the significant features of election by lot at Athens.

2. Examine the functions of the Athenian *βουλή*.

Or,

Give some account of the Revolution of 411 at Athens.

3. Explain the position of Lucian in the history of Greek literature.

Or,

Account for the characteristics of Alexandrian poetry.

4. Trace the development of the idea of international law among Greek states.

5. What evidence is there of the decline of Hellenic religion during the period you have studied?

6. Compare the dramatic methods of Aeschylus and Sophocles.

7. Illustrate from Plato or elsewhere differences between the Greek and the modern attitude to psychological *or* ethical problems.

B.—GROUP OF MENTAL PHILOSOPHY.

LOGIC.

FIRST PAPER—THREE HOURS.

(SIX *questions to be attempted.*)

1. Trace the growth in Greek thought of the distinction between the corporeal and the incorporeal.

2. Contrast in the systems of Heraclitus and Parmenides (*a*) the results reached as to the nature of ultimate reality, and (*b*) the reasons given for the rejection of sense-perception as a criterion of truth.

3. Explain carefully the relation of Empedocles to previous and to subsequent thinkers.

4. What fundamental opposition of view is exhibited by the philosophical systems of Anaxagoras and Democritus? Indicate the special problems which were thus raised for succeeding thinkers.

5. Sketch the history of the Sophistic movement, discussing the justice of Plato's attacks on the Sophists. Is Socrates rightly considered a Sophist?

6. Is Plato well described as mediating between Heracliteanism and Eleaticism?

7. "The world of Ideas is the sensible world better understood." Is this a true account of Plato's doctrine?

8. Do Plato's arguments in favour of immortality retain their cogency if (*a*) the Ideal theory or (*b*) the identification of soul with vital principle be denied?

9. Do you regard it as proved that in his later dialogues Plato systematically modified his Ideal theory?

SECOND PAPER—Three Hours.

(Six *questions to be attempted, of which* FOUR *must be taken from Section A and* TWO *from one of the other Sections.*)

Section A.

1. Is Kant's treatment of space and time compatible with the teaching of genetic psychology?

2. Examine Kant's distinction between "knowing" and merely "thinking" an object.

3. Are Kant's criticisms of the Ontological argument conclusive?

4. Is Kant consistent in his treatment of the conception of Cause?

5. Is subsumption the essence of all inference or is it indispensable to all inference? Carefully consider the arguments advanced for either an affirmative or a negative answer to this question.

6. Can we attend (*a*) to our own mental states, (*b*) to anything but our own mental states?

Section B.

7. Explain the function of the will in Descartes's theory of knowledge, and compare Descartes's view of the relation of will to understanding with that of Spinoza.

8. Explain and discuss Spinoza's "Infinite Modes."

9. Is Monadism compatible with the belief that reality is a systematic whole? Discuss this question with special reference to the philosophy of Leibniz.

10. Compare the views of Bacon, Spinoza and Leibniz on Teleology.

Section C.

11. "No satisfactory proof can be given that, even in abstract metaphysics, the succession of categories must be precisely that adopted by Hegel." Examine this statement.

12. Examine the explanation offered by Hegel of contingency in nature. How far is the admission of such contingency compatible with his general philosophical position?

13. On what basis are reason and understanding distinguished? Is the distinction tenable?

14. In what sense can Hegel be said to have held the identity of Thought and Being?

THIRD PAPER. Two Hours.

1. Is Phenomenalism the right standpoint for Psychology?

2. Is a concept the same as a generic image?

3. Can an inquiry into the nature of truth be satisfactorily pursued apart from an inquiry into the conditions of belief?

4. (*a*) "Induction is the inverse process of deduction." (*b*) "Induction is generalisation from experience."

Explain and examine these views, indicating their value and relation to one another, and referring them to their ultimate grounds.

MORAL PHILOSOPHY.

FIRST PAPER. Three Hours.

1. What objections have been taken to Aristotle's list of moral virtues, and with what justice? Why does he attach so much importance to friendship?

2. Expound Aristotle's conception of nature and show its bearing upon his ethical theory.

3. Discuss the value of the ethical methods of Aristotle and of Spinoza.

4. Expound and discuss Spinoza's attitude towards the passions, and his conception of the free man.

5. Give an historical survey of the psychological and metaphysical bases of Hedonism.

6. How is freedom possible according to Kant? Examine Green's remarks on the Kantian position in this matter.

7. Discuss Kant's solution of the antinomy of practical reason.

SECOND PAPER. Three Hours.

1. "All human knowledge is false, because it is incomplete." Discuss this.

2. "Active experience is the basis of geometry, not geometry of active experience." What view of space is implied in this statement? Compare it with Kant's.

3. "If experience is an organic unity, then identity amongst reals must be as fundamental as their difference." Examine this by reference to the Pluralistic doctrine.

4. "Kant taught that the object of knowledge is dependent on the subject, but not that the subject of knowledge is dependent on the object." Is this true? What consequences follow from it?

5. 'When ten men are said to look at an object, how many objects do they see?' What view of perception is implied in this question?

6. 'Either evil is unreal or God is not absolute.' Examine this view.

7. Compare the Moral Sense theory of Hutcheson with that of Shaftesbury.

THIRD PAPER—Two Hours.

1. Expound the inter-relations of ethics, economics and political philosophy.

2. Examine the descriptions of the State as (*a*) an organism, (*b*) a person.

3. Can resistance to the sovereign be justified if the social contract is an historical fiction?

4. Discuss the chief arguments that have been advanced in favour of the existence of private property.

C.—GROUP OF MATHEMATICS AND NATURAL PHILOSOPHY.

MATHEMATICS.

FIRST PAPER—Three Hours.

(Note.—*Candidates are requested to answer not more than* NINE *of the following questions.*)

1. Prove that if tangents are drawn from the outer of two confocal ellipses to the inner they are equally inclined to the normal at the point to the outer ellipse.

If a triangle inscribed in the outer ellipse is circumscribed to the inner, prove that the normals at the three vertices to the outer ellipse are concurrent, and also the normals at the points of contact of the inner ellipse are concurrent.

2. Prove that the equation

$$\pm\sqrt{(x/a)}\pm\sqrt{(y/b)}+1=0,$$

represents a parabola touching the axes of coordinates. Connect this with the trilinear equation of the inscribed conic

$$(l\alpha)^{\frac{1}{2}}+(m\beta)^{\frac{1}{2}}+(n\gamma)^{\frac{1}{2}}=0.$$

If the same parabola be moved about into different positions with respect to the axes, supposed at right angles, show that the equation of its axis may always be put

$$x\cos\phi+y\sin\phi+l\cot 2\phi=0,$$

where l is the semi-latus rectum.

3. Find an equation determining the three pairs of straight lines through the intersections of

$$ax^2 + 2hxy + by^2 + 2gx + 2fy + c = 0,$$
$$a'x^2 + 2h'xy + b'y^2 + 2g'x + 2f'y + c' = 0.$$

If c, c' vanish, so that the origin is at one of the points of intersection, prove that if $gf' - g'f = 0$ the conics touch, and if further

$$g'^2(ab - h^2) - gg'(ab' + a'b - 2hh') + g^2(a'b' - h'^2) = 0$$

they have double contact.

4. What is meant by a Tangential Equation?

Show that the tangential equation of the conic

$$ux^2 + vy^2 + wz^2 + 2u'yz + 2v'zx + 2w'xy = 0$$

is $$U\lambda^2 + V\mu^2 + W\nu^2 + 2U'\mu\nu + 2V'\nu\lambda + 2W'\lambda\mu = 0$$

where U, U' .. are the minors of the discriminant

$$uvw + 2u'v'w' - uu'^2 - vv'^2 - ww'^2 = 0.$$

Show that the equation of the director-circle of the conic

$$lx^2 + my^2 + nz^2 = 0$$

is $$(mb^2 + nc^2)lx^2 + (nc^2 + la^2)my^2 + (la^2 + mb^2)nz^2$$
$$+ (b^2 + c^2 - a^2)mnyz + (c^2 + a^2 - b^2)nlzx + (a^2 + b^2 - c^2)lmxy = 0.$$

5. Prove that it is possible to project any straight line to infinity and at the same time any two angles into two given angles.

Show how to project any two conics into a pair of rectangular hyperbolas.

6. Prove the rule for forming the n^{th} convergent to the continued fraction

$$\frac{a_1}{b_1 +}\,\frac{a_2}{b_2 +}\,\frac{a_3}{b_3 +}\,\dots\,.$$

Prove that the n^{th} convergent to the fraction

$$\frac{a_1}{a_1 + 1 -}\,\frac{a_2}{a_2 + 1 -}\,\frac{a_3}{a_3 + 1 -}\,\dots\,\frac{a_n}{a_n + 1}$$

s $\sigma_n/(\sigma_n + 1)$ where $\sigma_n = a_1 + a_1a_2 + a_1a_2a_3 + \dots + a_1a_2a_3\dots a_n$.

7. Show how to find the product of a determinant of three rows and olumns by a determinant of two rows and columns.

Evaluate the determinant.

$$\begin{vmatrix} \dfrac{1}{x_1 - \alpha_1}, & \dfrac{1}{x_1 - \alpha_2}, & \dfrac{1}{x_1 - \alpha_3} \\ \dfrac{1}{x_2 - \alpha_1}, & \dfrac{1}{x_2 - \alpha_2}, & \dfrac{1}{x_2 - \alpha_3} \\ \dfrac{1}{x_3 - \alpha_1}, & \dfrac{1}{x_3 - \alpha_2}, & \dfrac{1}{x_3 - \alpha_3} \end{vmatrix}$$

8. State and prove Sturm's Theorem on the separation of the roots of an algebraic equation.

Form Sturm's functions for the cubic

$$x^3+3px^2+3qx+r=0$$

and prove that if $p^2<q$ there are two imaginary roots.

9. Prove that
$$\operatorname*{Lt}_{m=\infty}\left(1+\frac{z}{m}\right)^m$$

is convergent for every finite value of z, and equal to

$$1+z+\frac{z^2}{1\,.\,2}+\ldots+\frac{z^n}{1\,.\,2\ldots n}+R_n$$

where
$$|R_n|<\frac{z^{n+1}}{(n+1)!}\bigg/\left(1-\frac{z}{n+2}\right).$$

Prove that
$$\operatorname*{Lt}_{m=\infty}\left(1+\frac{x+iy}{m}\right)^m=e^x(\cos y+i\sin y).$$

10. Prove the expression for the area of a quadrilateral, having sides of lengths a, b, c, d, and 2ω for the sum of a pair of opposite angles

$$\{(s-a)(s-b)(s-c)(s-d)-abcd\cos^2\omega\}^{\frac{1}{2}}$$

where
$$2s=a+b+c+d.$$

If the quadrilateral can be inscribed in a circle of radius R, prove that the area is equal to

$$(ab+cd)^{\frac{1}{2}}(ac+bd)^{\frac{1}{2}}(ad+bc)^{\frac{1}{2}}/4R.$$

11. Prove that when n is even,

$$\sin n\theta=n\sin\theta\cos\theta\prod_{r=1}^{r=\frac{1}{2}(n-2)}\left(1-\frac{\sin^2\theta}{\sin^2\frac{r\pi}{n}}\right).$$

Prove that the product

$$\prod_{r=1}^{r=\frac{1}{2}(n-2)}\left\{1-\frac{(\sin\theta+\cos\theta)^2}{2\sin^2\frac{r\pi}{n}}\right\}$$

is equal to
$$(-1)^m\sin n\theta/\tfrac{1}{2}n\cos 2\theta \qquad [n=4m,$$

or
$$(-1)^m\cos n\theta/\tfrac{1}{2}n\cos 2\theta \qquad [n=4m+2.$$

12. Prove that in any spherical triangle,

$$\cos\frac{a}{2}=\sqrt{\left\{\frac{\cos(S-B)\cos(S-C)}{\sin B\sin C}\right\}},$$

where
$$2S=A+B+C.$$

Prove also that

$$\frac{\sin(A\pm B)}{\sin C}=\frac{\cos a\pm\cos b}{1\pm\cos c}.$$

13. Prove that if one angle of a spherical triangle be given in position, and also the sum of its sides, the side opposite the given angle touches two given circles.

Prove also that if one side and the sum of the angles of a triangle is given, the locus of the vertex is a circle, and determine its position.

SECOND PAPER—THREE HOURS.

(NOTE.—*Candidates must not answer more than* NINE *of the following questions.*)

1. Prove that the coordinates of any point of a curve referred to the tangent and normal at any other point may be written

$$x = s - \tfrac{1}{6}s^3/\rho^2 + \tfrac{1}{8}s^4\rho'/\rho^3 + \ldots,$$
$$y = \tfrac{1}{2}s^2/\rho - \tfrac{1}{6}s^3\rho'/\rho^2 + \tfrac{1}{24}s^4(-1 + 2\rho'^2 - \rho\rho'')/\rho^3 + \ldots,$$

where s is the length of the arc measured from the origin, ρ the radius of curvature at the origin, and accents $'$, $''$ denote differentiations with respect to s.

Prove that to the same order the length of the chord from the origin to the point is $$s - \tfrac{1}{24}s^3/\rho_1^2$$
where ρ_1 is the radius of curvature at the point.

2. Evaluate the integrals

$$\text{(i)} \int_0^\infty \frac{dx}{1+x^6}; \qquad \text{(ii)} \int_0^1 dx \log x \cos(\log x);$$
$$\text{(iii)} \int_{-\infty}^{\infty} dx(a + 2hx + cx^2)^{-\frac{3}{2}} \quad [ac > h^2].$$

3. Prove that the coordinates of a point on the locus described by a point P of a circle of radius b, which rolls outside a fixed circle of radius a are

$$x = (a+b)\cos\theta + b\cos\left(1+\frac{b}{a}\right)\theta, \qquad y = (a+b)\sin\theta + b\sin\left(1+\frac{b}{a}\right)\theta.$$

Show that the p, r equation of this curve is

$$r^2 = a^2 + \frac{4b(a+b)}{(a+2b)^2}p^2.$$

4. Show how to find the envelope of a curve whose equation involves ne arbitrary parameter.

Find the envelope of the line $\frac{x}{a}\sec\theta + \frac{y}{b}\operatorname{cosec}\theta = 1$, sketch it and find s area.

5. Prove that if $k^2 = \int r^2 dv \Big/ \int dv$, where the integrals are taken roughout any volume, and r is the distance of the element dv from a xed axis, then $$k^2 = k_0^2 + c^2$$

where k_0^2 is the corresponding quantity taken with respect to a parallel axis through the centroid of the volume, and c is the distance between the two axes.

Prove that for a right circular cone, taken with respect to an axis parallel to the base of the cone

$$k_0^2 = \tfrac{3}{80}(h^2 + d^2)$$

where h is the height of the cone and d the diameter of its base.

6. Define uniform convergence of a series, and prove that the necessary and sufficient condition in order that

$$D\sum^{\infty} u_r = \sum^{\infty} Du_r$$

is that the series Σu_r should be uniformly convergent.

Determine the region in which a power series converges uniformly.

7. Prove that the expression

$$1 + \frac{1}{2} + \frac{1}{3} + \ldots + \frac{1}{n} - \log n$$

tends to a finite limit when n is indefinitely increased.

Writing $\Gamma(1+x) = \underset{n=\infty}{\mathrm{Lt}} \dfrac{n^x n\,!}{(x+1)(x+2)\ldots(x+n)}$, and calling the value of the above limit γ, prove that

$$\log \Gamma(1+x) = -\gamma x + \tfrac{1}{2}S_2 x^2 - \tfrac{1}{3}S_3 x^3 + \tfrac{1}{4}S_4 x^4 - \ldots,$$

where S_r denotes the sum of the reciprocals of the r^{th} powers of the natural numbers.

8. Explain Newton's method of approximating to the branches of a curve in the neighbourhood of any multiple point.

Examine the nature of the curve

$$x^4 + y^4 + xy^2 - x^3 = 0$$

in the neighbourhood of the origin, and trace the curve.

9. Prove that for rectangular axes the equation of the plane through any three points may be written

$$x\Delta_1 + y\Delta_2 + z\Delta_3 - 3V = 0$$

where Δ_1, Δ_2, Δ_3 are the projections on the coordinate planes of the triangle through these points, and V is the volume of the tetrahedron they form with the origin.

Prove that if the axes are oblique the determinant $\Sigma(\pm x_1 y_2 z_3)$ represents $6 \times$ volume of tetrahedron $\times \sqrt{(1 - \cos^2\lambda - \cos^2\mu - \cos^2\nu + 2\cos\lambda\cos\mu\cos\nu)}$ where λ, μ, ν are the angles between the axes.

10. Prove that if the quadric

$$ax^2 + by^2 + cz^2 + 2fyz + 2gzx + 2hxy + 2ux + 2vy + 2wz + d = 0$$

be transformed to any new set of rectangular axes, the three expressions

$$a + b + c, \quad bc + ca + ab - f^2 - g^2 - h^2,$$
$$abc + 2fgh - af^2 - bg^2 - ch^2,$$

are invariant.

Prove also the invariance of the discriminant

$$\begin{vmatrix} a & h & g & u \\ h & b & f & v \\ g & f & c & w \\ u & v & w & d \end{vmatrix}$$

for a change of origin.

Prove that if

$$ax^2 + by^2 + cz^2 + 2fyz + 2gzx + 2hxy = 1,$$
$$a'x^2 + b'y^2 + c'z^2 + 2f'yz + 2g'zx + 2h'xy = 1,$$

are two quadrics which are transformed simultaneously, the expression $a'(bc - f^2) + b'(ca - g^2) + c'(ab - h^2) + 2f'(gh - af) + 2g'(hf - bg) + 2h'(fg - ch)$ is unaltered.

11. Specify the various geometrical forms which a quadric equation can cover, with their distinguishing features, and point out how these can degenerate into one another.

What is represented by the quadric equation

$$(3x + y - 1)^2 + (x - 2y - z - 3)^2 = 0.$$

Prove that the equation of any tangent plane to the surface

$$x^2 + y^2 - 2y - z^2 = 0$$

may be written

$$\sqrt{2}x \cos\theta + y \sin\theta - z \cos\phi = \sin\theta + \sin\phi.$$

12. Indicate with figures the form and position of the surface

$$x + yz = 0.$$

Find the centre of the section of this surface by the plane $x = my + nz$ and show that the eccentricity of this section is

$$2^{\frac{1}{2}} \Big/ \left(1 + \frac{mn}{\sqrt{(1 + m^2)(1 + n^2)}}\right)^{\frac{1}{2}}.$$

13. Explain the terms *osculating plane*, *binormal*, *radius of spherical curvature*, *radius of torsion*.

Illustrate your answer by a diagram.

Prove that the normals to the surface

$$2z = x^2/\rho_1 + y^2/\rho_2 + \dots$$

in the immediate neighbourhood of the origin, do not in general intersect one another, but they intersect very approximately the two lines $y = 0$, $z = \rho_1$; $x = 0$, $z = \rho_2$.

THIRD PAPER—Two Hours.

(NOTE.—*Candidates must attempt not more than* SIX *of the following questions.*)

1. Show how to solve Clairaut's equation,

$$y = px + f(p).$$

Prove that the coordinates of any point upon the singular solution of this equation may be put

$$x=-f'(m),\quad y=f(m)-mf'(m).$$

Given that the singular solution is

$$2x^2+6xy+9y^2-2x=0,$$

show that the differential equation in Clairaut's form is

$$3y-3p(x+1)+1+\sqrt{(9p^2+6p+2)}=0.$$

2. Find the general solution of the equation

$$D^2y+kDy+n^2y=0,$$

where k, n^2 are constants.

If y, z are given by the simultaneous equations

$$D^2y-kDz+n^2y=0,\quad D^2z+kDy+n^2z=0,$$

prove that the oscillations represented are harmonic; that for each period y and z have equal amplitudes and phases that differ by a quarter period. Examine the cases $k=0$, $k=\infty$.

3. If we know one solution of the equation

$$\frac{d^2y}{dx^2}+Iy=0,$$

where I is a function of x—say $y=u$—prove that the general solution is

$$y=Cu+Du\int\frac{dx}{u^2}.$$

One solution of the equation

$$(3-x)(x-2)\frac{d^2y}{dx^2}+2y=0$$

consists of an integral function of x; determine it and find the general solution.

4. Prove that

$$(\tan^{-1}x)^2=x^2-\tfrac{1}{2}(1+\tfrac{1}{3})x^4+\tfrac{1}{3}(1+\tfrac{1}{3}+\tfrac{1}{5})x^6-\tfrac{1}{4}(1+\tfrac{1}{3}+\tfrac{1}{5}+\tfrac{1}{7})x^8+\dots.$$

Prove that this series is convergent up to and including $|x|=1$.

5. Explain the geometrical relations of the two equations

$$Pp+Qq-R=0,\quad \frac{dx}{P}=\frac{dy}{Q}=\frac{dz}{R},$$

and show how these lead to the general solution of the partial differential equation.

Solve the equation

$$(y^2-z^2)p+(z^2-x^2)q+(x^2-y^2)=0.$$

6. Write a note on Real Number, with special reference to Dedekind's definition, the definitions of the fundamental operations with real numbers, and the properties which it is necessary to prove that this definition secures.

Prove that in accordance with your definition

$$\sqrt{2}+\sqrt{3}=\sqrt{3}+\sqrt{2}.$$

7. If $u = x + iy$, $v = \xi + i\eta$, and (x, y), (ξ, η) are the coordinates of points upon two maps, prove that if the points are related by the equation

$$u = f(v),$$

the elementary parts of each map are similar and their areas are in the ratio $\partial(\xi, \eta)/\partial(x, y)$.

If points on a globe be projected from the N. pole upon a tangent plane at the S. pole, giving a map on which the coordinates are (ξ, η), prove that Mercator's projection may be derived from this by the transformation

$$iu = \log v.$$

8. Prove that every rational algebraic function of zero degree has as many non-essential singularities as zeroes.

In what sense is this theorem true for any degree?

What is an essential singularity?

Examine the singularities of the functions

$$\frac{z}{z^2+1}, \ \cot z, \ \log z, \ e^{\frac{1}{z}}.$$

9. Define the term *residue* with respect to any pole, and prove that the sum of the residues for any function $f(z)$ is

$$\frac{1}{2\pi i}\int_C f(z)dz,$$

where the path of integration C encircles each pole once.

How do you deal with the case of a pole at infinity?

Show how to determine the coefficients of a Laurent series representing $f(z)$. Within what region is your series valid?

NATURAL PHILOSOPHY.

FIRST PAPER—THREE HOURS.

(NOTE.—*Candidates are requested not to attempt more than* EIGHT *of the following questions.*)

1. A particle moves in a plane curve: find from first principles, without using Cartesian coordinates, the expressions for the normal and tangential accelerations.

Prove that these are equivalent to co-existing accelerations $h^2r/p^3\rho$ along the radius vector towards the origin and $(h/p^2)\,dh/ds$ along the tangent to the curve, where p denotes the length of the perpendicular from the origin on the tangent, ρ the radius of curvature, and h is the moment of momentum (per unit mass) of the particle about the origin.

Hence show that if a particle describes a circle under an attraction towards a point on the circumference the law of force is the inverse fifth power of the distance.

2. The uniplanar motion of a particle is referred to rectangular axes which are rotating in the plane with angular velocity ω. Show how to find the corresponding equations of motion of the particle, supposing ω to vary with the time. Apply these to find the polar equations of motion of a particle under a central force.

Two particles are in motion along two smooth horizontal grooves at right angles to one another under their mutual attraction, which varies according to the inverse square of the distance. Find the equations of motion and determine the path of the centroid of the particles.

3. State Poinsot's theorem of the momental ellipsoid connecting the moments of inertia of a rigid body about different axes drawn through any point.

Find the momental ellipsoid at the centroid of a uniform triangular plate.

Find for any point of a body the equation of a surface such that the squares of the lengths of the perpendiculars from the origin on the tangent planes are proportional to the moments of inertia of the body about axes through that point in the directions of these perpendiculars. Describe the geometrical relation of this surface to the momental ellipsoid.

4. Define a wrench, and show that a wrench can be determined which is equivalent to any system of forces acting on a rigid body. State the conditions necessary for the equilibrium of the body.

A heavy uniform rod AB can turn freely about the fixed end A while B rests against a rough vertical wall, coefficient of friction μ. If B is just on the point of slipping, specify, with the aid of a careful sketch, the forces maintaining equilibrium: and show that if N is the foot of the perpendicular from A on the wall, θ the inclination of NB to the horizontal and ϕ the angle NAB, then

$$\mu=\frac{\tan\phi}{\tan\theta}.$$

5. A light open tank of mass M is mounted on a truck which runs without resistance along a horizontal railway. The truck is exposed to a uniform vertical shower of rain so that its mass increases with the time. If the truck is started with initial velocity v_0, find the time which it takes to traverse a distance s along the railway. Find the energy lost and the rate of dissipation at any instant. [The rotation of the wheels of the truck may be neglected.]

What effect, if any, is produced on the motion if water escapes through a hole in the bottom of the truck? Give reasons for your answer.

6. A rod of length $2l$ and mass m can turn freely about one end. It is held vertical with the free end uppermost and is left to itself. It descends and strikes without rebound a fixed obstacle on a level with and at a given distance d from the pivot. Show that if Q and R are the impulses on the obstacle and pivot respectively,

$$Q=\frac{2ml}{d}\sqrt{\frac{2lg}{3}},$$

and

$$R=ml\sqrt{\frac{3g}{2l}}\left\{\frac{4}{3}\frac{a}{d}-1\right\}.$$

7. A heavy flexible inextensible string of uniform density rests in limiting equilibrium on a rough plane curve whose plane is vertical;

derive equations for determining at any point the stretching force in the string and the pressure on the curve per unit length.

Let the curve be a circle of radius a and let l_1, l_2 be the lengths of string hanging vertical on either side; if l_2 only just supports l_1, show that

$$l_1 = l_2 e^{\mu\pi} + \frac{2a\mu(1 + e^{\mu\pi})}{1 + \mu^2},$$

where μ is the coefficient of friction.

8. How is an impulse measured? Give the equations of motion of a rigid body for impulsive forces and show how they can be derived from the ordinary equations of motion.

A "bar-bell" consisting of two uniform solid spheres of equal size connected by a rigid bar (the mass of which can be neglected) rests on a smooth horizontal table. One of the spheres is struck a blow with a mallet in a horizontal direction at right angles to the line of centres, and passing through the centre of the sphere. The body begins to turn about a vertical axis intersecting the line of centres: show that the kinetic energy generated is less for this axis than for any other parallel axis intersecting the same line, with the same velocity communicated to the body struck.

9. Prove Gauss's theorem of the surface integral of normal force over a closed surface described in a gravitational field of force. Apply the theorem to prove that a uniform sphere attracts an external particle as if the whole mass of the sphere were collected at the centre.

10. Show how by taking the closed surface in Question 9 so as to fit round the convex surface and the plane face of a segment of a sphere, the attraction between the segment and the other segment completing the sphere may be found. Hence find the gravitational pull between two hemispheres of a solid uniform sphere.

11. Establish Poisson's differential equation for a volume distribution of matter of finite density.

Prove that if a function $f(x, y, z)$ be a solution of Laplace's equation, $\frac{1}{r}f\left(\frac{x}{r^2}, \frac{y}{r^2}, \frac{z}{r^2}\right)$, where $r = \sqrt{x^2 + y^2 + z^2}$ is also a solution.

Modify Laplace's equation for the case of a distribution of matter uniform about a centre, and by integration derive from it the usual results for a spherical attracting body.

12. By means of Lagrange's method, or otherwise, indicate the theory of the motion of a pendulum consisting of a rigid body symmetrical about a line passing through the point of suspension, and containing within it, with axis along the line of symmetry, a flywheel which is in rapid rotation.

Find the equations of small vibrations, considering the framework as massless and the flywheel as having moment of inertia only about the axis of rotation. Discuss the motion as a conical pendulum, and find the influence of the rotation of the flywheel on the period.

SECOND PAPER—Three Hours.

(Note.—*Candidates are requested not to attempt more than* EIGHT *of the following questions.*)

1. Write down the equations of motion of a perfect fluid in the usual so-called Eulerian form.

Prove that the accelerations parallel to the axes can be written in the form

$$\frac{\partial u}{\partial t} + \operatorname{div}\{u(u, v, w)\} - u \operatorname{div}(u, v, w)$$

with two similar equations. [By the expression $u(u, v, w)$ is meant u^2, uv, uw, and by $\operatorname{div}(u, v, w)$ the expression $\partial u/\partial x + \partial v/\partial y + \partial w/\partial z$.]

Prove that if q be the resultant velocity of the fluid at any point and ds be an element of path in the direction of flow, while q' and ds' are the velocity and an element of path in any other direction at the same point, the acceleration in this latter direction at the point can be written

$$\frac{\partial q'}{\partial t} + q\frac{\partial q'}{\partial s}.$$

2. A fluid has component velocities u, v, in the plane of x, y at a point P, and these components change from point to point in the neighbourhood of P. Prove that the line integral of the flow round any closed curve in the plane is equal to the integral of $\partial v/\partial x - \partial u/\partial y$ taken over the surface.

Hence find the average velocity along the circumference of a very small circle in the plane of motion with centre at P, and deduce the result that if ω be the angular velocity of elemental rotation of the fluid at P,

$$2\omega = \frac{\partial v}{\partial x} - \frac{\partial u}{\partial y},$$

where the values of the quantities on the right hand side are taken for the point P.

3. If $\omega_{ss'}$ be for any point P the angular velocity of elemental rotation about an axis, at right angles to the plane of the two directions, (1) s that of the resultant velocity q of the fluid, (2) s' inclined at an angle θ to s, and q' be the velocity component along s', prove that

$$\frac{\partial q'}{\partial s} - \frac{\partial q}{\partial s'} = 2\omega_{ss'} \sin\theta.$$

If χ denote the function given by the equation

$$\chi = \int \frac{\partial q}{\partial t} ds + \tfrac{1}{2}q^2 + V + \int \frac{dp}{\rho},$$

where V is the potential of the applied forces, prove that

$$\frac{\partial \chi}{\partial s'} = 2\omega_{ss'} q \sin\theta.$$

Give any physical interpretation of this result that occurs to you, and state any analogy which you perceive between it and a result of electrodynamics.

4. Discuss the propagation of waves in a liquid of uniform depth h under the action of gravity, and show that the velocity of propagation of waves of length λ is

$$\sqrt{g\lambda \tanh(2\pi h/\lambda)/2\pi}.$$

Hence derive the velocity according as λ is great or small in comparison with h.

5. Write an account of the application of the method of images to hydrodynamics, giving examples.

6. Transform by an elementary process the equation of wave propagation

$$\frac{\partial^2\phi}{\partial t^2} = c^2\nabla^2\phi$$

to the proper form for symmetry about an axis, namely

$$\frac{\partial^2(r\phi)}{\partial t^2} = c^2\frac{\partial^2 r\phi}{\partial r^2}.$$

Give the general formal solution of this equation.

Adopting the particular solution

$$r\phi = \sin\frac{2\pi}{\lambda}(r - ct),$$

show that only at a distance from the source equal to many wave lengths is the displacement $\partial\phi/\partial r$ inversely as the distance, while near the source a different law holds good. How may the motion of air, say, represented by this particular solution of the differential equation be imagined produced?

If ϕ have the meaning stated, we get $r\,\partial\phi/\partial x$, $r\,\partial^2\phi/\partial x^2$ as other particular solutions. How may the motion represented by these be imagined to be produced?

7. Prove that the bending moment M at a section of a slightly bent beam may be found from the equation $M = EI/\rho$ or approximately

$$= EI\frac{d^2y}{dx^2}.$$

A stiff uniform rod AB of length l and weight W is held firmly at A so that the inclination of the rod to the horizon at A is a small angle α. If the rod bends under its own weight so that B comes to the same evel as A, show that $\tan\alpha = Wl^2/8IE$.

Prove that the work done by gravity in bending the rod is $W^2l^3/40IE$.

8. A uniform right cylindrical wire is suspended vertically with a ibrator of great moment of inertia hung at its lower end. The ibrator is turned round the wire as axis through a specified angle, and s then let go. Show that a wave of torsional change is propagated long the wire and reflected at its upper end. Find the differential quation of the wave motion.

Give a solution, and hence derive for the case of wave-length great in mparison with the length of the wire the ordinary formula for the etermination of torsional rigidity.

9. As an alternative to (8).

Investigate by St. Venant's method the torsion of a uniform cylinder of elliptic section.

Give a clear summary of the results.

10. Prove, with specification of the stresses, that the equations of motion of an isotropic elastic solid, under no external forces, are of the form

$$\rho\frac{\partial^2\xi}{\partial t^2}=\frac{\partial P}{\partial x}+\frac{\partial U}{\partial y}+\frac{\partial T}{\partial z};$$

and, assuming the values of P, Q, R, S, T, U in terms of derivatives of the displacements, ξ, η, ζ, put the equations in the form indicated by

$$\rho\frac{\partial^2\xi}{\partial t^2}=(k+\tfrac{1}{3}n)\frac{\partial\delta}{\partial x}+n\nabla^2\xi,$$

where $\delta=\delta\xi/\partial x+\partial\eta/\partial y+\partial\zeta/\partial z$, and k, n have their usual meanings.

11. Prove that if we assume

$$\xi=\partial\phi/\partial x+u,\quad \eta=\partial\phi/\partial y+v,\quad \zeta=\partial\phi/\partial z+w,$$

where ϕ, u, v, w are functions of x, y, z, t, subject to the condition that $\partial u/\partial x+\partial v/\partial y+\partial u/\partial z=0$, that the differential equations are respectively satisfied by $\partial\phi/\partial x$, $\partial\phi/\partial y$, $\partial\phi/\partial z$, and therefore split into two sets which give the propagation (1) of a condensational wave with velocity $\sqrt{(k+\frac{4}{3}n)/\rho}$, (2) of a distortional wave with velocity $\sqrt{n/\rho}$.

What is the nature of the modulus $k+\frac{4}{3}n$?

12. Show that the series

$$\frac{4\gamma}{\pi^2}\sum_{1}^{\infty}\frac{1}{m^2}\sin(\tfrac{1}{2}m\pi)\sin(\tfrac{1}{2}m\pi x),$$

where $\gamma=\frac{1}{2}bl^2/\{a(l-a)\}$ has the value bx/a for $0<x<a$, and $b(x-l)/(a-l)$ for $a<x<l$.

Apply this result to find the form at time t of a string vibrating transversely which was initially at rest in the form of the triangle indicated by the values of the series written above. (The displacements are supposed small.)

This *mutatis mutandis* gives also the solution of a problem on the conduction of heat. State that problem.

13. Give a definition of absolute thermodynamic temperature based on a cycle of a perfect engine.

The following process was also used by Lord Kelvin to define absolute thermodynamic temperature. The substance expands dv at constant pressure, does work pdv and absorbs heat H. Call pdv/H the work-ratio. The substance is adiabatically raised in temperature dT, and in pressure dp. Call dp/p the pressure-ratio. The temperature-ratio dT/T is, according to the doctrine of absolute temperature, equal to the product of the work-ratio and the pressure ratio. Show that this statement follows from your definition.

14. Show how the scale of a gas thermometer is properly defined, and explain what in that scale is meant by absolute zero.

Show that if t be temperature centigrade on a given mercury thermometer,

$$t = 100 \frac{1 + G_{100}}{1 + G_t} \frac{E - G_t}{E_{100} - G_{100}},$$

where E_t, G_t are the total unital expansions of mercury and glass between 0 and t.

15. How has the absolute thermodynamic scale been compared with the air thermometer scale?

Give some account of experiments made first by Joule alone, and then by Joule and Thomson, using the porous plug method, from which this comparison was obtained. Show clearly how from *Joule's* experiments it follows that the internal energy of a gas depends little if at all on the volume.

16. In the porous plug experiment, let v be the unital volume of the gas before passing through the plug, δp be the excess of the pressure on the supply side of the plug above that on the delivery side, δT the temperature rise produced by the passage, dT the rise of temperature which would be produced by the imposition of dp without change of volume, and let the temperature rise δT be annulled by abstraction of heat $C_p \delta T$ at constant pressure. Prove by the temperature-ratio given in question (13), or otherwise, that if dv be the change of volume *after* this annulment has taken place,

$$\frac{v}{T} \frac{dT}{dv} = \frac{1}{1 - \frac{C_p}{v} \frac{\delta T}{\delta p}}.$$

THIRD PAPER—THREE HOURS.

(NOTE.—*Candidates are requested not to attempt more than* EIGHT *of the following questions.*)

1. Investigate, with full specification of the quantities involved, the differential equation of the flow of heat along a bar the sides of which are covered with varnish impermeable by heat. Show how the same equation may be made to include also the case of lateral radiation.

The temperatures at any time t are represented by the ordinates of a graph the abscissae for which are the distances of the different cross-sections from a chosen one. Prove that the time-rate of increase (or diminution) of temperature at any cross section is proportional to $1/(\rho \cos^3 \theta)$, where ρ is the radius of curvature of the graph for the cross-section, and θ is the inclination of the graph there to the axis of abscissae.

2. A uniform ring is heated at one point until the flow of heat has become steady under lateral radiation according to the usual law. The ource of heat is then removed and the ring left to itself. The temperaures at the point formerly heated and at the diametrically opposite point are observed at successive equal intervals after a considerable ime has elapsed.

Show, with a sufficient sketch of the theory to justify your results, ow the conductivity and the radiation constant can be determined rom these observations.

3. How must the equation of the variable flow of heat in a thin bar be modified, if, besides loss from radiation, there is a gain of heat from a constant electric current flowing along the wire? Indicate how the equation can be integrated. A uniform wire the ends of which are kept at the same temperature, carries a steady current γ, which has flowed so long that the wire has acquired a steady state of temperature. The sides of the wire are impermeable by heat, and the whole heat is retained in the wire except that which is lost at its extremities. Show that if v be the temperature at any distance x from either end, σ the electric conductance of the wire per unit of length, and s the cross-section, the equation of conduction of heat is

$$ks\frac{\partial^2 v}{\partial x^2}+\frac{\gamma^2}{\sigma}=0.$$

If u be the electric potential at the section x, show that

$$s\frac{k}{\sigma}\frac{\partial^2 v}{\partial u^2}+1=0.$$

Hence find an integral relation between v and u, involving k and σ, and show how, from observations of temperatures and potentials at chosen points, the ratio of electrical to thermal conductivity can be found.

4. Find from first principles the equation of flow of heat in a right circular cylinder of uniform material, subject to radiation at the surface.

Discuss the steady state when the cylinder is infinitely long in one direction, and has its end maintained at a temperature which is a function $f(r)$ of the distance r of the point considered from the axis.

Explain fully the meaning of any functions you employ in your solution, and show that when the radius is small the results approximate to that which holds for an infinitely thin bar.

5. Define an electric image, and write a short succinct sketch of the method of electric images. Explain the method of electric inversion.

6. Assuming an expression for, and fully specifying, the magnetic force at any point due to an element of a conductor carrying a current, show that the magnetic force due to a straight wire infinitely extended both ways, and carrying a current γ, is $2\gamma/d$ at a distance d from the conductor.

A finite plane circuit, carrying a current γ', is acted on by the current γ in the straight wire just specified, which is in the plane of the circuit. Every element of the circuit is at a distance from the straight wire very great in comparison with that between the two elements intersected by any straight line whatever, drawn at right angles to the straight conductor. Show first that, *whatever the form of the circuit may be*, the resultant electromagnetic force upon it is in the direction in the plane of the circuit perpendicular to the straight wire, and of amount $2\gamma\gamma' A/d^2$, where A is the area of the circuit, and d the distance of any point of it from the straight wire.

Show also that the mutual inductance of the wire and the circuit is $2A/d$, and verify the former result by deducing it from the latter.

In what manner is the term "area" to be interpreted if the circuit is disposed in two or more simple or compound loops?

7. Assuming the result stated at the beginning of Question 6, show that the resultant electromagnetic force on a circular circuit, which is in plane with the infinitely long straight conductor, and carries a current γ', has the value

$$4\pi\gamma\gamma'\frac{d-\sqrt{d^2-c^2}}{\sqrt{d^2-c^2}},$$

where c is the radius of the circle and d the distance of the centre from the straight conductor.

Also show that the mutual inductance of the straight conductor and the circle is

$$4\pi(d-\sqrt{d^2-c^2}).$$

Show further how the former result can be obtained from the latter, stating clearly the physical principle or theorem, involved in your process.

Infer, without calculation, the results for an elliptic circuit with one axis parallel to the straight wire.

8. Define impedance of a conductor through which alternating currents are passing, and show by a short theoretical discussion how this quantity becomes of importance.

Two conductors of known resistances—one A, non inductive, the other B, inductive—are placed in series, and the mean squares of the potential differences between the extremities are determined by an electrometer, arranged in a manner which is to be explained. Show from your account of theory that the ratio of the square roots of the mean squares in the two cases is that of the impedance in one to the resistance in the other. Hence find an expression for the self inductance of the conductor B.

9. State Maxwell's equations of the electromagnetic field, and give a brief statement of their derivation. Exhibit these equations in the reciprocal form, and discuss the physical significance of the expressions.

Derive the conditions which must hold at the common boundary of two transparent surfaces.

10. Show how the cardinal points of a system of lenses are used for the graphical construction of images.

Investigate whether the following method of finding the focal length holds in the case of a system of lenses: Let m be the magnification for certain positions of the image and the object. Move the image screen a distance d. Then move the object until focus is again obtained. Let the magnification now be m'. Then

$$f=\frac{d}{m-m'}.$$

11. Distinguish between the dispersion and resolving power of a prism, and derive Rayleigh's expressions for them.

The indices of refraction of a certain glass being given by

$$\mu_C=1{\cdot}6545,$$
$$\mu_D=1{\cdot}6585,$$
$$\mu_E=1{\cdot}6635,$$

the wave-lengths of the C and E lines in the solar spectrum being

(6563, 5270)10^{-8} cms., calculate the base of a 60° prism which is just capable of resolving the D lines (5890, 5896)10^{-8}.

12. The equations $$r_n=\frac{\sin(\theta-i)}{\sin(\theta+i)}$$

and $$r_p=\frac{\tan(\theta-i)}{\tan(\theta+i)}$$

give the ratio of the amplitudes of the reflected to the amplitudes of the incident light for the components polarised in and perpendicular to the plane of incidence.

Sketch how these formulae are derived on the electromagnetic theory. What do they become for perpendicular incidence?

State Brewster's law, and derive it from these formulae.

13. Explain the formation of shadows by means of Huygens' principle and Fresnel's zones. What are the difficulties in the way of this explanation?

Show that in certain cases the shadow of a circular disc has a bright spot at its centre.

Describe a zone plate and discuss its laws.

D.—GROUP OF ENGLISH (LANGUAGE, LITERATURE, AND BRITISH HISTORY).

ENGLISH LANGUAGE.

FIRST PAPER—THREE HOURS.

PART I. PRESCRIBED TEXTS.

Translate, with notes on the words italicised, FIVE passages from each of the following sections.

(*N.B.—Importance is attached to adequate notes.*)

A.

(*a*) Fela spella him sǣdon þā Beormas ǣgþer ge of hiera āgnum lande ge of þǣm landum þe ymb hīe ūtan wǣron; ac hē nyste hwæt þæs *sōþes* wæs, for þǣm hē hit self ne geseah. Þā Finnas, him þuhte, ǫnd þā Beormas sprǣcon nēah ān geþēode. Swīþost hē fōr ðider, tōēacan þæs landes scēawunge, for þǣm horshwælum, for ðǣm hīe habbað swīþe æþele bán on hiora tōþum; (þā tēð hīe brohton sume þǣm cyninge); ǫnd hiora hȳd bið swīðe gód tō sciprāpum. Se hwæl bið micle lǣssa þonne ōðre hwalas: ne bið hē lęngra ðonne syfan ęlna lang; ac on his āgnum lande is se bętsta hwælhuntað: þā bēoð

eahta and feowertiges ęlna lange, and þā mæstan, fiftiges ęlna lange; þāra hē sǣde þæt he *syxa sum* ofsloge syxtig on twām dagum.

(*b*) Þā gegaderade Ælfred cyning his fierd, ǫnd fór þæt hē gewicode betwuh þǣm twām hęrgum, þǣr þǣr hē niehst rymet hæfde for wudufæstenne ǫnd for wæterfæstenne, swá þæt he męhte ǣgþerne gerǣcan, gif hie ǣnigne feld secan wolden Þā fōron hie siþþan æfter þǣm wealda hloþum ǫnd flocrādum, bī swa hwaþerre *efes* swā hit þonne fierdleas wæs. Ǫnd hi mǫn eac mid ōþrum floccum sohte mæstra daga ælce, oþþe on niht, ge of þære fierde ge eac of þǣm burgum. Hæfde se cyning his fierd on tu tonumen, swa þæt hie wæron simle healfe æt hām, healfe ute, butan þǣm monnum þe þa *burgi* healdan scolden. Ne cóm se hęre oftor eall ute of þǣm setum þonne tuwwa: oþre siþe þā hie ærest to lǫnde comon, ær sio fierd gesamnod wære; oþre siþe þā hie of þǣm setum faran woldon. Þā hie gefengon micle hęrehyð, ǫnd þā woldon ferian norþweardes ofer Tęmese inn on Eastseaxe ongean þā scipu.

(*c*) Se gytsere hæfð ænne lichaman, and menigfealde scrūd; hē hæfð āne wambe, and þusend manna bigleofan: witodlice þæt he for gytsunge uncyste nānum ōðrum syllan ne mæg, þæt hē hordað, and nāt hwām; swā swa se witega cwæð: "On ídel bið ǣlc mann gedreted se ðe hordað, and nāt hwam he hit gegaderað." Witodlice ne bið he ðæra æhta hlāford, ðonne he hī dǣlan ne mæg; ac hē bið þæra æhta ðeowa, þonne he him eallunga þēowað; and þǣrtōēacan him weaxað untrumnyssa on his lichaman, þæt hé ne mæg ǽtes oððe wǽtes brūcan. Hé carað dæges and *nihtes* þæt his feoh gehealden sy: he gymð grǣdelīce his teolunge, his gafoles, his gebytla he berȳpð þá wanspēdigan, hē ful·gǽð his lustum and his plegan; þonne fǣrlice gewitt he of *ðissere* worulde, nacod and forscyldigod, synna āna mid him fęrigende; for ðan þe he sceal éce wíte ðrowian.

(*d*) ‘Forgif mē, swegles Ealdor,
sigor and sōðne gelēafan, þæt ic mid þȳs sweorde mōte
gehēawan þysne morðres bryttan; geunne me minra gesynta,
þearlmod þēoden gumena: nahte ic þīnre næfre
miltse þon māran þearfe: gewrec nū, mihtig Dryhten,
torhtmōd tīres brytta, þæt mē ys þus torne on mode,

hāte on hreðre mīnum.' Hī ðā se hēhsta Dēma
ǣdre mid ęlne onbryrde, swā hē dēð ānra gehwylcne
hēr-būendra þe hyne him tō helpe sēceð
mid rǣde and mid rihte gelēafan. Þā wearð hyre rūme
on mōde,
hāligre hyht genīwod; genam ðā þone hǣðenan *mannan*
fæste be feaxe *sīnum*, tēah hyne folmum wið hyre weard
bysmerlīce, and þone bealofullan
listum ālēde, lāðne mannan,
swā hēo ðæs unlǣdan ēaðost mihte,
wel gewealdan.

(*e*) Þuhte mē þæt ic gesāwe syllicre trēow
on lyft lǣdan leohte bewunden,
bēama beorhtost: eall þæt bēacen wæs
begoten mid golde; gimmas stōdon
fægere æt foldan scēatum, swylce þǣr fīfe wǣron
uppe on þām eaxlgespanne. Behēoldon þǣt *ęngel* Dryhtnes
fægere þurh *forðgesceaft*; ne wæs ðæt hūru fracodes gealga,
ac hine þǣr behēoldon hālige gāstas,
męnn ofer moldan and eall þēos mǣre gesceaft.
Syllic wæs se sigebēam, and ic synnum fáh,
forwundod mid wǫmmum. Geseah ic wuldres trēow
wǣdum geweorðod wynnum scīnan,
gegyred mid golde, gimmas hæfdon
bewrigen weorðlīce wealdes trēow.

(*f*) Dagas sind gewitene,
ealle onmēdlan eorþan rīces;
nearon nū cyningas ne cāseras
ne goldgiefan, swylce iū wǣron,
þonne hī mǣst mid him mǣrþa gefręmedon
and on dryhtlicestum dōme lifdon:
gedroren is þēos duguð eall drēamas sind gewitene;
wuniað þā wācran and þās woruld healdaþ,
brūcað þurh bisgo. Blǣd is gehnǣged;
eorþan indryhto ealdað and sēarað
swā nū mǫnna gehwylc geond middangeard:
yldo him on fareð, onsȳn blācað,
gǫmelfeax gnornað, wāt his *iūwine*,
æþelinga bearn eorþan *forgiefene*.

B.

(*g*) J ne can ne i ne mai tellen alle þe wunder ne alle þe pines ð hi diden wrecce men on þis land. 7 ð lastede þa xix wintre wile Stephne was king 7 æure it was uuerse 7 uuerse. Hi læiden gæildes on the tunes æure umwile 7 clepeden it *tenserie.* þa þe uurecce men ne hadden nan *more* to gyuen. þa ræueden hi 7 brendon alle the tunes. ð wel þu myhtes faren all a dæis fare sculdest thu neure finden man in tune sittende. ne land tiled. Þa was corn dære. 7 flesc 7 cæse 7 butere. for nan ne wæs o þe land. Wrecce men sturuen of hungær. sume ieden on ælmes þe waren sum wile rice men. sume flugen ut of lande.

(*h*) Ha beoð se wise þat ha witen alle godes reades. his runes ant his domes þe derne beoð. ant deopre þen eni sea *dingle.* ha seoð i godd alle þing. ant witen of al þat is ant wes ant eauer schal iwurden. hwet hit beo. hwi. ant hwerto ant hwer of hit bigunne. Ha luuieð god wiðute met. for þat ha understondeð hu he haueð bi ham idon þurh his muchele *godlec* ant hwet ha ahen his deorewurðe milce to ʒelden. ant euch an luueð oðer ase muchel as him seoluen. Se gleade ha beoð of godd: þat al is hare blisse. se muchel þat ne mei hit munne na muð. ne spealie na speche for þi þat euchan luueð oðer as him seoluen. Euchan haueð of oðres god ase muche murhðe as of his ahne. bi þis ʒe mahen seon ant witen. þat euchan haueð sunderlepes ase feole gleadschipes: as ha beoð monie alle. ant euch of þe ilke gleadschipes is to eauer euch-an ase muche gleadunge: as his ahne sunderliche. ʒet ouer al þis. hwen euchan luueð godd mare þen him seoluen. ant þen alle þe oðre: mare he gleadeð of godd wið-uten ei etlunge þen of his ahne gleadunge. ant of alle þe oðres.

(*i*) ‘ðis two dremes boðen ben on,
God wile ðe tawnen, king pharaon;
ðo .vij. ger ben get to cumen,
In al fulsum-hed sulen it ben numen.
And .vij. oðere sulen after ben,
Sori and nedful men sulen *is* sen;
Al ðat ðise first .vii. maken,
Sulen ðis oðere vii. rospen & raken;
Ic rede ðe king, nu her bi-foren,
To maken laðes and gaderen coren,

ðat ðin folc ne wurð vnder-numen.
Quan ðo hungri gere ben forð-cumen.
King pharaon listnede hise red,
ðat wurð him siðen seli sped.
He bi-tagte iosep his ring,
And his bege of gold for wurðing,
And bad him al his lond bi-sen,
And under him hegest for to ben,
And bad him welden in his hond
His folc, and agte, & al his lond.

(*j*) Als she shulde his clothes handel
On for to don, and blawe the fir,
She saw ther-inne a lict ful shir,
Also brict so it were day,
Aboute the knaue ther he lay.
Of hise mouth it stod a *stem*,
Als it were a sunne-bem;
Also lict was it ther-inne,
So ther brenden cerges thrinne:
'Ihesu Crist!' *wat* dame Leue,
'Hwat is that lict in ure cleue!
Ris up Grim, and loke wat it menes,
Hwat is the lict as thou wenes.'
He stirten bothe up to the knaue,
For him man shal god wille haue,
Vnkeueleden him, and swithe unbounden;
Aud sone anon upon him funden,
Als he *tirneden* of his serk,
On his rict shuldre a kyne merk,
A swithe brict, a swithe fair.

(*k*) Game of houndes he louede inou · & of wilde best,
& is forest & is wodes · & mest þe niwe forest,
Þat is in Souþhamtessire · vor þulke he louede inou,
& astorede wel mid bestes · & lese, mid gret wou.
Vor he caste out of house & hom · of men a gret route,
& bi-nom hor lond, ȝe, þritti mile · & more þer-aboute
& made it al forest & lese · þe bestes uor to fede.
Of pouere men deserited · he nom lutel hede.
Þer-uore þer-inne vel · mony mis-cheuing,
& is sone was þer-inne issote · Willam, þe rede king;

& is o sone, þat het Richard · *caȝte* þer is deþ al-so.
& Richard, is o neueu · brec þere is nekke þer-to,
As he rod an honteþ · & par-auntre is hors spurnde.
Þe unriȝt ido to poueremen · to such mesaunture turnde.
Wo-so bi king Willames daye · slou hert oþer hind,
Me ssolde pulte out boþe is eye · & makye him *pur blind.*
Heyemen ne dorste bi is day · wilde best nime noȝt,
Hare ne wilde swin · þat hii nere to ssame ybroȝt.
Þer nas so heymon non · þat him enes wiþ-sede,
Þat me ne ssolde him take anon · & to prison lede.

(*l*) Meires and Maistres · and ȝe þat beoþ mene
Bitwene þe kyng and þe Comuns · to kepe þe lawes,
As to punisschen on pillories · or on pynnyng stoles
Brewesters, Bakers · Bochers and Cookes;
For þeose be Men vppon Molde · þat most harm worchen,
To þe pore people · þat *percel mel* buggen.
Þei punisschen þe peple · priueliche and ofte,
And recheþ þorw *Regratorie* · & Rentes hem buggeþ,
With þat þe pore people · schulde puten in heore wombe;
For toke þei on trewely · þei timbrede not so hye,
Ne bouȝte none *Borgages* · beo ȝe certeyne.
Bote Meede þe Mayden · þe Meir heo bi-souȝte,
Of alle suche sullers · seluer to taken,
Or presentes withouten pons · as peces of seluer,
Rynges with Rubyes · þe Regratour to fauere
'For my loue,' quod þe ladi · 'loue hem wel vchone,
And soffre hem to sulle · sumdel aȝeyn Resoun.'
Bote Salamon þe Sage · a Sarmoun he made,
To a-Mende Meires · and men þat kepeþ þe lawe;
And tolde hem þis teeme · þat I wol telle nouþe.

PART II. GENERAL QUESTIONS.

(*Answer* TWO *of the following.*)

1. Give an account of the Latin element in English before the Norman Conquest.

2. Write a note on the history of the Southern dialect, referring to the more important works written in it.

3. Why was dialectal differentiation more marked after the Norman Conquest than before?

4. Discuss the influence of printing on the spread of standard English.

5. What is meant by the type theory in Old English metric? Give a full analysis of the A-type, showing all the forms used, and illustrating where possible.

SECOND PAPER—Three Hours.

Unprepared Translation.

(*a*) Onfōh þissum fulle frēodrihten mīn,
sinces brytta, þū on sǣlum wes
goldwine gumena, and tō Gēatum sprec
mildum worde, swā sceal man dōn.
Bēo wið Gēatas glæd geofena gemyndig;
nēan and feorran þū nū friðu hafast!
Mē man sægde þæt þū ðē for sunu wolde
hęrerinc habban. Heorot is gefǣlsod
bēahsęle beorhta; brūc þenden þū mōte
manigra mēda, and þīnum māgum lǣf
folc and rīce, þonne þū forð scyle
metodsceaft sēon! Ic mīnne can
glædne Hrōðulf, þæt hē þā geogoðe wile
ārum healdan, gyf þū ǣr þonne hē,
wine Scyldinga, worold oflǣtest:
wēne ic þæt hē mid gōde gyldan wille
uncran eaferan, gif hē þæt eal gemǫn
hwæt wit tō willan and tō worðmyndum
umbor-wesendum ǣr ārna gefręmedon.

(*b*) Ðǣr wæs on eorle ēðgesȳne
brogden byrne and bill gecost,
geatolic gūðscrūd, grīmhelm manig,
ǣnlic eoforcumbul. Wǣron æscwigan,
sęcgas ymb sigecwēn, sīðes gefȳsde:
fyrdrincas frǫme fōron on luste
on Crēca land, cāseres bodan,
hilderincas hyrstum gewęrede.
Ðǣr wæs gesȳne sincgim locen
on þām hęreþrēate, hlāfordes gifu.

Wæs seo eadhrēðige Elene gemyndig,
þriste on geþance, Þeodnes willan,
georn on mode, þæt hio Iudea
ofer hęrefeldas hēape gecoste,
lindwigendra, land gesohte,
sęcga þreate; swā hit siððan gelamp
ymb lytel fæc, þæt ðæt leodmægen,
gūðrofe hæleþ to Hierusalem
cwomon in þa ceastre corðra mæste,
eorlas æscrofe mid þā æðelan cwen.

(*c*) Beo þu on sið gearu,
siþþan he and leomu and þes lifes gæst
asundrien sęmwist hyra
þurh feorggedāl! Fys æfter þon,
þæt þu gesęcge sweostor minre
þære leofestan, on lęngne weg
to þām fægran gefean forðsið minne,
on ecne eard; and hyre eac gecyð
wordum minum, þæt ic me warnade
hyre onsyne ealle þrāge
in woruldlife, forðy ic wilnode
þæt wit unc eft in þām ecan gefean
on sweglwuldre, geseon mōstun
fore onsyne eces deman,
leahtra lēase: þær sceal lufu uncer
wǣrfæst wunian, þær wit wilna ā
in ðǣre beorhtan byrig brūcan motun,
ēades mid ęnglum. Þu hyre eac saga
þæt hēo þis bānfæt beorge bifæste,
lāme biluce, lic orsāwle
in þeostorcofan, þær hit þrāge sceal
in sęndhofe siþþan wunian.

(*d*) Ēalā, ofermōdan, hwī ge wilnigen þæt ge underlutan mid eowrum swiran þæt dēaðlice geoc? oððe hwī ge seon on swā idelan geswince þæt gē woldon ēowerne hlīsan tobrǣdan ofer swā manega þēoda? Þēah hit nū gebyrige þæt ðā ūtemestan ðīoda ēowerne naman up āhębban and on manig þēodisc ēow hęrigen, and þēah hwā wexe mid micelre æþelcundnesse his gebyrda, and þēo on eallum welum and on eallum wlęncum, ne se dēaþ þeah swelces ne rēcð. Ac he forsiehð þā æþelo, and þone rīcan gelīce and þone hēanan ofswelgð, and swā geemnet þā rīcan and þā hēanan. Hwæt sint nū þæs foremǣran and þæs wīsan goldsmiðes bān, Welǫndes? Forþī ic cwæð þæs wīsan, forþȳ þām cræftegan ne mæg nǣfre his cræft losian, ne hine mǫn ne mæg þon ēð on him geniman ðe mǫn mæg þā sunnan āwęndan of hiere stęde. Hwǣr synt nū þæs Welǫndes bān, oððe hwā wāt nū hwǣr hī wǣron? Oððe hwǣr is nū se foremǣra and se ārǣda Rōmwara hęretoga, sē wæs hāten Brutus, ōðre naman Cassius? Oððe se wīsa and fæstrǣda Cato, sē wæs ēac Rōmana hęretoga; sē wæs openlīce ūðwita? Hū ne wǣran þās gefyrn forðgewitene? and nān mǫn nāt hwǣr hī nū sint. Hwæt is heora nū tō lāfe, būtan se lȳtla hlīsa and se nama mid fēaum stafum āwriten? and þæt gīt wyrse is, þæt wē witon manige foremǣre and gemyndwyrþe weras forðgewitene, þe swīðe fēawa manna ā ongitað. Ac mǫnige licgað dēade mid ealle forgitene, þæt se hlīsa hīe furðum cūþe ne gedēð. Þēah gē nū wēnen and wilnian þæt gē lange libban scylan hēr on worulde, hwæt bið ēow þonne þȳ bęt? Hū ne cymð se dēað þēah, þēah hē late cume, and ādēð ēow of ðisse worulde? And hwæt forstęnt ēow þonne se gilp, hūru þām þe se æfterra dēað gegrīpð and on ēcnesse gehæfð?

(*e*) Đonne wæs se cnoll swā hit nū cūð is, þæt se munt is micel ūteweard; and hē is styccemǣlum mid hrīmige wuda oferwexen, sum mid grēnum felda oferbrǣded. Ǫnd þā æfter þon þe ðǣr wǣron ðā hālgan lofsangas and mæssan gefyllede, hīe ðā mid mycclum gefēan and blisse, and mid þæs ęngles blētsunga eft hwyrfende wǣron tō heora hūsum. Se bisceop þā ðǣr gesętte gōde sangeras and mæssepreōstas and manigfealdlice ciricean þegnas, þā þǣr seoððan dæghwāmlīce mid gelimplicre endebyrdnesse weorðode: næs hweðre nǣnig man þe þǣr ǣfre nihtes tīdum dorste on þǣre ciricean cuman. Ac on dægrǣd siððan hit frumlyhte, hīe þyder inwǣron tō ðǣm lofsangum gesamnode. Þonne wæs þǣr ēac of þǣm ilcan stāne þǣre ciricean hrōfes on þa norðhealfe þæs weofodes swīþe wynsum and hluttor wæta ūtflōwende, þæs þā bīggęngan brucon, þe on ðǣre stōwe stille wunodan: þonne wæs ongēan ðyssum wæterscipe glæsen fæt on seolfrenre racentēage āhangen, þæt ðæs wynsuman wǣtan þǣr onfēng. Þǣr wæs gewuna þǣm folce, þonne hīe to hūsle gegangen hæfdon, þæt hīe æfter

blæddrum up to ðæm glæsenum fæte āstigon, and þæs heofenlican wǣtan hīe þǣr onfengon and onbyrigdon. Sē þonne wæs wynsum on ðære onbyrignesse and hē wæs on þǣm innoðe hālwende. Is þis ēac tō tācne þæt manige men on feforādle and on mislicum ōþrum untrumnessum þurh þyses wætan onbyrignesse wurdon sōna gehælde.

(*f*) Þu speke þruppe of mones help to fluttunge and to fode. Weila lutel þarf þe carien for þin anes liuneð a meke meiden as tu art and his deore leofmon þat is alre þinge lauerd. þat he ne mahe lihtliche. and þat he nule gladluche ifinde þe largeliche al þat te biheoneð. And tah þu wone hefdest oðer drehdest ani derf for his deorewurðe luue as þe oðre doð for monnes. to goderheale þin he hit þoleð to fonde þe hweðer þu beo treowe. and greiðeð þi mede monifald in heuene. Vnder monnes help þu schalt sare beon iderued for his and for þe worldes luue þat beoð baðe swikele. and wakien imoni care. nawt ane for þe self as þarf godes spuse. ah schalt for monie oðre. ase wel for þe laðe ofte as for þe leue and mare beon idreechet þen eni driuel iþe hus oðer eni ihured hine and tin anes dale bruken ofte wið bale. and bitterliche abuggen. litel witen her of þe selie godes spuses þat iþe swote eise wiðute swuch trubuil. in gastelich este and ibreoste reste luuieð þe soðe luue. and in his anes seruise hare lif leadeð. Inoh wel ham is her. and unilich elleshwer. Alle worldes wele ham is inoh riue. Al ha habbeð þerof þat ha wel wilneð. Al þat eauer godd iseoð þat ham wule framien. Ne mei na worldlich unhap bireauen ham hare weole. for ha beoð riche and weolefule iwið iþe herte.

THIRD PAPER—Three Hours.

(*Answer* TWO *questions from each part, and not less than* SIX *in all.*)

(N.B.—*Candidates must show adequate knowledge in both parts, but are recommended to aim at a high standard of distinction in one of them.*)

Part I. Grammar.

Illustrative examples should be quoted in every case.

1. Trace the history of Germanic short *a* in Old English (West Saxon).

2. Show from the consideration of variant forms that the third, fourth, and fifth class of ablaut (strong) verbs are special cases of the Indo-Germanic ablaut series *e* : *o* : —.

3. Account for the consonantal variation in the preterite of certain strong verbs.

4. Explain the relation between the following pairs:

ǣnne, *ānne*; *bręngan*, *bringan*; *fand*, *funde*; *godas*, *godu*; *neaht*, *niht*; *reahte*, *rehte*; *sǣgon*, *sāwon*.

5. Discuss the inflexion of nouns with stem ending in *i* (*e*-plurals).

6. Write a note on contracted verbs in Old English, referring to dialect forms.

7. What means have we for determining the quantity of vowels in Middle English?

Indicate the most important quantitative changes which took place in Middle English.

8. Establish the dialect of the following passage, referring to characteristic forms:

Fore there neidfæræ nǣnig uuiurthit
thǫncsnotturra than him tharf sīe,
tō ymbhycggannæ ǣr his hiniǫngæ,
huæt his gāstæ gōdææth tha yflæs,
æfter dēothdæge dœ̄mid uueorthæ.

Point out archaic forms in the above, and give later equivalents in the same dialect.

9. Is the language of Chaucer in any degree artificial?

PART II. LITERATURE.

10. "*Beowulf* is essentially a courtly poem." Discuss.

11. Show your acquaintance with other epic material in old English besides *Beowulf*.

12. Give an account of "The Exeter Book," its contents, and importance.

13. "Iam vero infame in omnem vitam ac probosum superstitem principi suo ex acie recessisse." Illustrate from your reading the use of this motive in Old English literature.

14. "The complete work must have been one of the noblest in the whole range of Old English poetry." Discuss this estimate of *Judith*.

15. Write a brief literary life of Ælfric.

16. "Until Chaucer, Middle English vernacular literature was designed for the instruction of the lower orders." Expand and illustrate.

17. Give a brief account of the Arthurian legend in earlier English literature.

18. Write a note on "Bestiaries" in Old and Middle English literature.

ENGLISH LITERATURE.

FIRST PAPER—Three Hours.

1400-1600.

1. Estimate the condition of English literature at the time when Chaucer began to write.

2. Write a brief account of the alliterative poetry of the fourteenth century.

3. Describe Chaucer's merits and faults as a story teller.

4. Give some account of Wiclif's Bible, and its influence on English prose.

5. How far is fifteenth century life illustrated and described in the literature of the time?

6. Write an account of the Revival of Learning in England, and estimate its effect on English Literature.

7. Compare Malory and Spenser as masters of romance.

8. Describe the new metres employed in English from 1400 to 1600, and show how their introduction is connected with the progress of Poetry.

9. How did the Renaissance affect English prose?

10. Write notes on the following: Lawrence Minot; *The Flower and the Leaf*; *King Hart*; Foxe's *Acts and Monuments*; Nicholas Udall; Nicholas Grimald.

11. Trace the gradual secularisation of the English Drama during the sixteenth century.

12. "There are three marked styles in Elizabethan drama and no fourth—Marlowe, Shakespeare, Ben Jonson." Discuss.

SECOND PAPER—Three Hours.

1600-1850.

1. How far was the decadence of the Elizabethan drama due to political causes?

2. Give an account of some seventeenth century attempts to make religion the matter of poetry.

3. Compare Clarendon and Burnet as historians.

4. What kinds of drama flourished from 1660 to 1700?

5. Trace the rise of the familiar style in prose.

6. Write a character of Sir Thomas Browne *or* of Henry Fielding.

7. Discuss Gray's relations to the great poets of earlier and of later times.

8. "The early nineteenth century inherited common sense, and learned romance; the later nineteenth century inherited romance, and learned common sense." Discuss.

9. "Shelley combines poetry with reform, Wordsworth combines it with philosophy; Keats merely writes poetry." Discuss.

10. Compare Carlyle and Macaulay as historians.

SHAKESPEARE.

FIRST PAPER—Three Hours.

1. What can be known or conjectured regarding Shakespeare's debt to Marlowe and to Kyd?

2. Illustrate from the plays Shakespeare's knowledge of the London of his time.

3. Discuss the assertion that Shakespeare was a learned man.

4. Give famous examples of the happy and unhappy emendation of the text of Shakespeare.

5. In which of his plays does Shakespeare most nearly conform to the canons of the classical school of drama?

6. Discuss the relation of *Hamlet* and *King Lear* to earlier plays on the same subjects.

7. Compare *Romeo and Juliet* with *Troilus and Cressida.*

8. Write a criticism of those scenes in Shakespeare where women are introduced talking to one another.

9. Give an account of the chief extravagances of Shakespeare criticism.

SECOND PAPER—Three Hours.

1. "Among Shakespeare's characters the religious temperament is not represented." Discuss.

2. Discuss the relations of Shakespeare with Ben Jonson.

3. What are the most characteristic marks of Shakespeare's earlier style?

4. Estimate the merits of Johnson and Coleridge as Shakespeare critics.

5. Discuss the text of *Macbeth.*

6. What points of similarity have been found in the characters of Romeo, Hamlet, Macbeth, and Othello?

7. What is the evidence that Shakespeare sometimes collaborated with other authors?

8. "Shakespeare does not portray types of character, but individuals." Discuss.

9 "Shakespeare tried all styles—except the simple style." Discuss.

MARLOWE—Three Hours.

1. Write a history of English Blank Verse up to and including Marlowe, so as to bring out exactly what he did for the measure.

2. Enumerate the plays on which Marlowe and Shakspere are said to have collaborated; and give your own judgment on the matter.

3. "The strength and weakness of what Marlowe accomplished in literature corresponds with the influences from the real world to which he was subject." Discuss.

4. State and criticise Marlowe's Idea of Tragedy. In what respect does it mark an advance on former conceptions?

5. Write as full a note as you can on the text of *Dr. Faustus*.

6. "Up to the last Marlowe's great powers were ripening, while his judgment was becoming sane, and his taste purer." Elaborate, so as to take account of any external influences which may have contributed to this development.

Or, Write a full note on *The Jew of Malta* as a play.

7. Describe an Elizabethan Theatre; and indicate how the conditions and manner of acting may have affected Marlowe's plays.

8. Illustrate from Marlowe's works the Renaissance attitude to Beauty.

9. Distinguish the contribution to English Romantic Tragedy of Mediaeval and of Classical Drama. Which of the two do you regard as the more important?

BLAKE—Three Hours.

1. Compare the *Songs of Experience* with the *Songs of Innocence*. What difference is there in the poet's feeling and point of view?

2. Discuss the indebtedness of Blake to earlier English poetry. In what does his greatest originality consist?

3. Discuss Blake's theories of Imagination and Reason.

4. Write notes on the following poems: *To the Muses; Fair Elenor; The Tiger; The Clod and the Pebble; A Poison Tree*.

5. How was Blake influenced by the doctrines of the French Revolution?

6. What is Blake's theory of Moral Evil?

7. "Blake's method, when carried to its extreme, is more disastrous to poetry than the most rigid conventions of the eighteenth century." Write an examination of this criticism.

8. Is it true that Blake "did not accept fully the experience of the human heart"?

KEATS—Three Hours.

1. Give some account of the views of Keats on poetry. What changes are apparent in his later point of view? Is any light thrown on it by the revised version of *Hyperion*?

2. Discuss the following:

(*a*) "In Calidore we have the artist's palette rather than the picture."

(*b*) "Keats trampled upon his mother tongue as with the hoofs of a buffalo."

(*c*) "As a man, and viewed in relation to social objects, Keats was nothing. It was a mere affectation when he talked with apparent zeal of liberty or human rights or human prospects."

3. Write a criticism on *Isabella*. What are Matthew Arnold's comments on this poem?

4. Estimate the debt of Keats to Spenser and to Dryden.

5. How do the odes of Keats differ from earlier English odes? Write an appreciation of any of them that you rank among the very best English poems.

6. Write a note on Keats' management of the heroic couplet.

7. "Keats' poetry is said to be sensuous: that is precisely its merit." Discuss.

8. Do you agree with the view that *Hyperion* shows greater promise than any other of the longer poems?

BRITISH HISTORY—FIRST PERIOD.

FIRST PAPER—Two Hours.

1. What principles determined the foreign policy of Henry VIII.?

2. Distinguish the causes of the ecclesiastical revolution in England under Henry VIII. and Edward VI.

3. Do you think the reign of Edward VI. or that of Mary the more dangerous period for England?

4. Explain the causes which led Elizabeth to her French alliance.

5. Examine the wisdom of Elizabeth's policy towards Scotland.

6. Sketch the growth within your period, of English naval power.

SECOND PAPER—Two Hours

1. Discuss the connection between social and religious discontent in England in the XIV. century.

2. What do you know of the agrarian troubles mentioned in More's *Utopia*?

3. Examine the condition and prospects of English Protestantism in the year 1550.

4. Describe fully the reasons which prompted the government of Elizabeth to repress the Puritans.

5. What is Hooker's theory of the Church? Sketch a rejoinder to it from a Romanist *or* a Puritan standpoint.

6. How did the Reformation affect education in England?

BRITISH HISTORY—SECOND PERIOD.

FIRST PAPER—Two Hours.

1. What circumstances in the history of the XVI. century in England favoured the growth of pure Monarchy?

2. Explain the attitude of James I. to the Spanish power after 1618. What can be said to justify it?

3. Explain and criticise the political principles of Bacon.

4. Discuss the relations between the Crown and the judicature in the period 1603-42.

5. Estimate the justice of the appeal to History made by each side in the constitutional struggle.

6. "The position of the first Stuart kings [of England] was made much more difficult by the fact that in this period the Crown must attempt to complete the unity of Scotland and Ireland with England." Discuss this statement.

SECOND PAPER—Two Hours.

1. Describe and criticise Clarendon's opinion on the subject of the Privy Council.

2. Does the evidence of your texts confirm the view that the English rebellion was religious rather than political?

3. How do you interpret the political inconsistencies of Cromwell?

4. Discuss the merits as contemporary history, of either Clarendon's *History* or Cromwell's *Letters and Speeches*.

5. What effect had the events of your period on the development of political theory?

E.—GROUP OF MODERN LANGUAGES.

FRENCH LANGUAGE AND LITERATURE.

FIRST PAPER—Three Hours.

1. Traduire en anglais:

Le combat universel.

Toi dont l'étrange voix trouble comme un appel,
Dont l'âpre souffle enivre, et fait crier de joie
Là haut, dans le ciel noir, les grands oiseaux de proie,
Océan, Océan, ô lutteur eternel,

Je crois voir dans ton flot qui sur le roc se broie
L'image du combat, du choc universel :
La nature, elle aussi, comme tes mers ondoie,
Allant on ne sait où, poussée aux vents du ciel !

D'en haut glisse parfois un rayon : le flot sombre
S'éclaire à son sommet, puis redescend dans l'ombre.
Tel, flot humain perdu dans l'immense univers,

Je monte vers le ciel et tombe ; ma pensée,
Par un reflet d'en haut un instant traversée,
Défaille et, se brisant, sombre en la nuit des mers.

La Source.

Un mince filet d'eau tombait de la fontaine.
Tête nue au soleil, accoudée au rocher,
Une enfant, attendant que sa cruche fût pleine,
Ecoutait gravement l'eau lente s'épancher.

A pas traînants les bœufs revenaient de la plaine,
Et le soleil du soir empourprait le clocher.
Je voyais la fillette, épiant, se pencher
Sur le vase de grès où l'eau montait à peine.

Le jet limpide, au vent qui passe s'émiettant,
Frais et léger, tombait dans le vase en chantant.
—Comme ce filet grêle, écoule-toi ma vie ;

Je sens ton flot mouvant qui glisse et monte en moi,
Et parfois, pour savoir si la coupe est remplie,
Tranquille et curieux, je me penche sur toi.

Guyau.

2. Translate into French :

The Lamp of Memory: Pine Forest in the Jura.

Among the hours of his life to which the writer looks back with peculiar gratitude, as having been marked by more than ordinary fulness of joy or clearness of teaching, is one passed, now some years ago, near time of sunset, among the broken masses of pine forest which skirt the coast of the Ain, above the village of Champagnole, in the Jura. It is a spot which has all the solemnity, with none of the savageness of the Alps; where there is a sense of a great power beginning to be manifested in the earth, and of a deep and majestic concord in the rise of the long low lines of piny hills ; the first utterance of those mighty mountains symphonies, soon to be more loudly lifted and wildly broken along the battlements of the Alps. . . . And there is a deep tenderness pervading that vast monotony. . . . Patiently the clear green streams wind along their well-known beds ; and under the dark quietness of the undisturbed pines, there spring up, year by year, such company of joyful flowers as I know not the like of among all the blessings of the earth. Ruskin.

SECOND PAPER—Three Hours.

1. Traduire en français moderne :

As porz d'Espaigne en est passez Rodlanz
Sour Veillantif son bon cheval corant :
Portet ses armes, molt li sont avenanz,
E son espiét vait li ber palmeiant,
Contre le ciel vait la more tornant,
Laciét en som un gonfanon tot blanc,
Les renges d'or li batent jusque as mains :
Cors at molt gent, lo vis cler e ridant ;
E ses compaing apres lo vait sevant,
E cil de France lo claiment a guarant.
Vers Sarrazins reguardet fierement
E vers Franceis est umele e dolcement,
Si lor at dit un mot corteisement :
"Seignor, soef, alez lo pas tenant.
Cist paien vont lor martirie querant :
Encui avroms un eschiec bel e gent ;
Nuls reis de France n'out onques si vaillant."
A ces paroles vont les oz ajostant.

Chanson de Roland.

2. Commenter le passage ci dessus au point de vue du vocabulaire et de la syntaxe.

3. Explication grammaticale et littéraire du poème suivant :

De l'election de son sepulchre.

Antres, et vous fontaines,
De ces roches hautaines
Qui tombez contre-bas
D'un glissant pas ;

Et vous forests, et ondes
Par ces prez vagabondes
Et vous rives et bois
Oyez ma vois.

Quand le ciel et mon heure
Jugeront que je meure,
Ravi du beau séjour
Du commun jour,

Je defens qu'on ne rompe
Le marbre pour la pompe
De vouloir mon tombeau
Bastir plus beau.

Je veuil, j'enten, j'ordonne
Qu'un sepulchre on me donne,
Non près des rois levé
Ny d'or gravé,

Mais en cette isle verte
Où la course entrouverte
Du Loir autour coulant
  Est accollant,

Là où Braye d'amie
D'une eau non endormie
Murmure à l'environ
  De son giron.

Ronsard (*Odes*).

4. Commenter le passage suivant :

Il faut avoir femmes, enfants, biens, et surtout de la santé, qui peut ; mais non pas d'y attacher en manière que notre heur en dépende. Il faut se réserver une arrière-boutique, toute nôtre, toute franche, en laquelle nous établissions notre vraie liberté et principale retraite et solitude. En cette-ci faut-il prendre notre ordinaire entretien, de nous à nous-mêmes, et si privé que nulle accointance ou communication de chose étrangère y trouve place ; discourir et y rire, comme sans femme, sans enfants et sans biens, sans train, et sans valets : afin que, quand l'occasion adviendra de leur perte, il ne nous soit pas nouveau de nous en passer. Nous avons une âme contournable en soi même ; elle se peut faire compagnie ; elle a de quoi assaillir et de quoi défendre, de quoi recevoir et de quoi donner : ne craignons pas, en cette solitude, nous croupir d'oisiveté ennuyeuse.

Montaigne, *Les Essais*.

THIRD PAPER—Three Hours.

Littérature générale.

Répondre brièvement aux questions suivantes :

(*a*) Les Chansons de geste françaises sont-elles de véritables épopées ? Parler de leur origine, de leur *matière*, de leurs caractères essentiels.

(*b*) Que savez-vous de *Rutebeuf* ou de *Villon* ?

(*c*) L'esprit de la Renaissance dans Rabelais ou dans Ronsard.

(*d*) Analysez le caractère de deux des principaux personnages de Molière.

(*e*) Déterminer la place des tragédies de Voltaire entre la tragédie classique et le drame romantique.

(*f*) Exposer quelques-unes des doctrines philosophiques des Encyclopédistes.

FOURTH PAPER—Three Hours.

Période Spéciale de la Littérature française. Les 18e et 19e siècles.

Traiter aussi complètement que possible l'une des questions suivantes :

(*a*) Du rôle et du sens de la nature dans la poèsie romantique et dans la poèsie parnassienne.

(*b*) Indiquer en quoi diffère essentiellement l'art parnassien de l'art romantique.

(*c*) L'amour et la mort comme thèmes d'inspiration lyrique chez de Vigny, Lamartine et Musset.

GERMAN LANGUAGE AND LITERATURE.

FIRST PAPER. Three Hours.

1. Übersetzen Sie ins Englische :

Aber neben dem allgemeinen und unwandelbaren Stempel, welcher, entsprechend den Institutionen der Koniglichen Akademie der Wissenschaften, diesem Fest ein fur allemal aufgepragt ist, wird es immer noch einen besonderen und personlichen Charakter an sich tragen. Es hat wohl Staaten gegeben, in welchen der Monarch zunachst und vor allem der sichtbare Ausdruck, die populare Verkorperung der Staatseinheit ist und seine personliche Tatigkeit nicht in Rechnung gezogen, ja vielfach als unberechtigtes Eingreifen empfunden wird. Staaten, welche ebensowohl von Frauen regiert werden konnen wie von Mannern. Dies gilt von dem unsrigen nicht ; er wurde, erstarkt wie er ist, vorubergehend einen solchen Zustand zu ertragen vermogen, aber geworden ist er durch das Gegenteil davon und immer wurde derselbe als seiner Natur zuwider empfunden werden. Die Herrscher des Hauses Hohenzollern haben von jeher ein eigenes und personliches Verhaltnis zu ihren Untertanen gehabt ; das Verhaltnis, welches der Stadter zu seinem Burgermeister, der Kreisangehorige zu seinem Landrat hat, ubertragt sich hier in weiterem Kreise, in hoherer Steigerung auf den Landesherrn and verschmilzt in wohltätiger Einheitlichkeit mit dem sozusagen symbolischen Gedanken der Monarchie. Es gilt dies selbst fur die Vergangenheit. Wenn wir absehen von den wenigen der Bildung gänzlich entbehrenden und von den durch die unblutigen, aber darum nicht minder schweren National und Religionskriege unserer Zeit mit der Staatseinheit verfeindeten Kreisen, steht jeder Preusse zu den einzelnen Herrschern bis wenigstens zum Alten Fritz hinauf in einem sozusagen personlichen Verhältnis : bei aller Ehrfurcht, die dem Monarchen als solchem gebuhrt, werden die Verschiedenheit ihrer Verdienste um den Staat und die Gegensatze ihrer Personlichkeiten sehr lebhaft empfunden. Schwerlich gibt es einen anderen Staat, welcher eine auch nur annahernd ähnliche Erscheinung aufweist. Aufs engste hängt sie zusammen mit der eigentümlichen Kriegsverfassung unserer Monarchie. Es ist darum auch diese ihre Besonderheit dadurch in keiner Weise aufgehoben oder auch nur gemindert worden, dass dieselbe bei unserem Denken von dem formalen Absolutismus, der längst seine Berechtigung verloren hatte und anfing schwer auf den Gemutern zu lasten, zu der fur unseren Staat vor allem unentbehrlichen und wohltätigen konstitutionellen Ordnung ubergegangen ist

2. Ubersetzen Sie ins Deutsche :

The principal object, then, proposed in these poems was to choose incidents and situations from common life, and to relate or describe them, throughout, as far as was possible in a selection of language really used by men, and, at the same time, to throw over them a certain colouring of imagination, whereby ordinary things should be presented to the mind in an unusual aspect ; and, further, and above all, to make these incidents and situations interesting by tracing in them, truly though not ostentatiously, the primary laws of our nature : chiefly, as far as regards the manner in which we associate ideas in a state of excitement. Humble and rustic life was generally chosen, because, in that condition, the essential passions of the heart find a better soil in which they can attain their maturity, are less under restraint, and speak a plainer and more emphatic language ; because in that condition of life our elementary feelings co-exist in a state of greater simplicity, and, consequently, may be more accurately contemplated, and more forcibly communicated ; because the manners of rural life germinate from those elementary feelings, and, from the necessary character of rural occupations, are more easily comprehended, and are more durable ; and lastly, because in that condition the passions of men are incorporated with the beautiful and permanent forms of nature.

WORDSWORTH.

SECOND PAPER—Three Hours.

A.

1. Übersetzen Sie ins Neuhochdeutsche ZWEI von den drei folgenden Stücken :

(*a*) Er gedâhte : ichn mac daz niht bewarn,
und wil der künec selbe varn,
mirn werde nûn riterschaft benomen.
mich sol des strîtes vür komen
nûn her Gâwein :
des ist zwîvel dehein,
als schiere so er des strîtes gert,
ern werdes vür mich gewert.
entriuwen ez sol anders varn :
ich kan daz harte wol bewarn,
swer vierzehen tage bîtet,
daz er vor mir niht enstrîtet.
wan ich sol in disen drin tagen
des endes varn, und niemen sagen,
in den walt ze Breziljân,
suochen unz ich vunden hân
den stîc, den Kâlogrêant
sô engen und sô rûhen vant.
und dâ nâch sol ich schouwen
die schœnen juncvrouwen,
des êrbæren wirtes kint,

diu beidiu alsô hövesch sint.
so gesihe ich, swenne ich scheide dan,
den vil ungetanen man,
der dâ pfligt der tiere.

(*b*) Dô gie ze einem munster vil manec richer kneht
und manec edel ritter. die wisen heten reht
daz si den tumben dienden, als in was ê getân.
si heten hurzwile und ouch vil maneger vreuden wân.

Gote man dô zen êren eine messe sanc.
dô huop sich von den liuten vil michel der gedranc,
dâ si ze ritter wurden nâch ritterlicher ê
mit alsô grôzen êren, daz wætlich immer mer erge.

Si liefen dâ si funden gesatelt manec marc.
in hove Sigemundes der bûhurt wart sô starc,
daz man erdiezen hôrte palas unde sal.
die hôchgemuoten degene die heten grœzlichen schal.

Von wisen und von tumben man horte manegen stoz
daz der schefte brechen gein den luften doz.
trunzûne sach man vliegen fur den palas dan
von maneges recken hende: daz wart mit vlize getan

Der wirt der bat ez lâzen: dô zôch man dan diu marc.
man sach ouch dâ zebrochen vil manege buckel starc,
vil der edelen steine gevellet ûf daz gras
ab liehten schildes spangen: von hurte daz geschehen was

Dô giengens wirtes geste dâ man in sitzen riet.
vil der edelen spîse si von ir muede schiet
unt wîn der aller beste, des man in vil getruoc.
den vremden und den kunden bôt man êren dâ genuoc.

des wart mit lobe gezieret allez Sigemundes lant.
vil der varender diete ruowe sich bewac:
si dienden nâch der gâbe die man dâ riche vant.
Swie vil si kurzwile pflâgen al den tac.

(*c*) Swie vil sî flüeche unde bete
unde ouch scheltens getete,
daȝ enmohte ir niht frum wesen:
sî muoste iedoch genesen.
swaȝ dô scheltens ergie,
der arme Heinrich eȝ enpfie
als ein frumer ritter sol,
tugentlîchen unde wol,
dem schœner zuhte niht gebrast.
und dô der gnâdelôse gast
sîne maget wider kleite
und den arzât bereite
als er gedinget hâte,

dô fuor er gedrâte
wider heim ze lande.
swie wol er dô erkande
daʒ er dâ heime funde
mit gemeinem munde
niuwan laster unde spot,
daʒ lieʒ er liuterlîch an got.
 Nû hete sich diu guote magt
sô verweinet und verklagt,
vil nâhe hin unz an den tôt.
do erkande ir triuwe unde ir nôt
cordis spêculâtor,
vor dem deheines herzen tor
fürnames niht besloʒʒen ist.
sît er durch sînen süeʒen list
an in beiden des geruochte
daʒ er sî versuochte
reht alsô volleclîchen
sam Jôben den rîchen,
do erzeigte der heilige Krist
wie liep im triuwe and erbermde ist,
und schiet sî dô beide
von allem ir leide
und machete in dô zestunt
reine unde wol gesunt.

2. Geben Sie nähere Erklärungen über die unterstrichenen Wörter in den Stücken, die Sie übersetzt haben, sowie über: Si heten dâ ir friunde zwelf küener man; ir ietwederes ellen ûf schilden vaste lac; an sîme rôtem helme; des wurden sît gezieret sînes vater lant; mit sîner grôzen krefte; aller hande dinge was er im gereht; wir sullen den herren enpfâhen deste baz; daz si in heten grüezen sô rehte scône getân.

3. Konjugieren Sie ZWÖLF von den folgenden Verben: beschlozzen, enpfie, gebrast, schiet, varn, pfligt, bîtet, gunnen, stal, huop, zôch, sitzen, schuof, werben, beginnen, dîhen, houwen.

B.

(*Beantworten Sie* VIER *von den folgenden Fragen.*)

1. Was ist im Deutschen aus der athematischen Konjugation geworden?

2. Zeigen Sie ausführlich an Beispielen die Folge und Wirkung der Analogie in der Geschichte des deutschen Verbums.

3. Schreiben Sie Näheres über die Geschichte der folgenden Verben und Verbformen: war, neigen, lügen, verlieren, rächen, gegessen, frug, gehoben, darfst, wurde, worden, gewonnen.

4. Skizzieren Sie die Geschichte der Komparation der Adjektiva im Deutschen.

5. Was wissen Sie von den Wortentlehnungen in der mittelhochdeutschen Periode? Geben Sie Beispiele.

6. Geben Sie unter Beifugung von Beispielen eine Tabelle der Änderungen, die im deutschen Konsonantensystem durch die erste Lautverschiebung und durch das Vernersche Gesetz entstanden sind.

THIRD PAPER—THREE HOURS.

(*Beantworten Sie* SECHS *von den folgenden Fragen, und zwar* EINE *aus A,* ZWEI *aus B und* DREI *aus C.*)

A.

1. Welches sind Lessings Ansichten uber die Behandlung der historischen Charaktere in der Dichtung?

2. Was lehrt Aristoteles uber das Wesen der Tragodie, und wie fassten die franzosischen Tragiker diese auf? Kritisieren Sie Lessings Urteil uber die Auffassung der Franzosen.

B.

1. Inwiefern ist Goethes Epos *Hermann und Dorothea* ein echt deutsches Epos, und

2. ebenso sein Drama *Iphigenie*?

3. Welche grossen Zeitfragen werden in Goethes Drama *Gotz von Berlichingen* beruhrt?

4. Was lernen wir aus Goethes Drama *Egmont* uber die Verhaltnisse des niederlandischen Volkes?

C.

1. Charakterisieren Sie Schillers Jugenddramen.

2. Welches ist die Bedeutung und der Grundgedanke der Wallensteintrilogie?

3. Welche Umstände in Schillers Drama *Maria Stuart* erregen in uns besonders Furcht und Mitleid?

4. Aus welchem Grunde nennt Schiller sein Drama *Jungfrau von Orleans* eine romantische Tragodie?

FOURTH PAPER—THREE HOURS.

(*Beantworten Sie* SECHS *von den folgenden Fragen.*)

1. Welches sind die Bluteperioden der deutschen Literatur? Begrunden Sie ihre Einteilung.

2. Skizzieren Sie das historische Element in der germanischen Heldensage.

3. Schreiben Sie eine Charakteristik Hagens.

4. Beschreiben Sie die Entwickelung des Standes der Spielleute, ihr Wirken und ihren Einfluss.

5. Geben Sie eine Darstellung der Minnepoesie mit Bezug auf Entstehung, Form und Inhalt.

6. Welche Bedeutung hat Gottsched in der deutschen Dichtkunst und Sprache? Was lässt sich für ihn und was gegen ihn sagen?

7. Geben Sie eine Übersicht über den Zustand der deutschen Literatur am Schluss des 18. und am Anfang des 19. Jahrhunderts.

8. Skizzieren Sie den Einfluss des Auslandes auf die deutsche Literatur.

9. Charakterisieren Sie Klopstocks Oden.

III.—FOR DEGREE OF B.Sc.

A.—IN PURE SCIENCE.

FIRST EXAMINATION.

MATHEMATICS—See pp. 618—621.
NATURAL PHILOSOPHY—See pp. 621—625.
CHEMISTRY—See p. 630.
BOTANY—See p. 631.
ZOOLOGY—See p. 690.

FINAL EXAMINATION.

MATHEMATICS—See pp. 642—649.
NATURAL PHILOSOPHY—See pp. 649—658.

ASTRONOMY.

FIRST PAPER—ONE HOUR AND A HALF.

(ONE *of each number to be attempted first.*)

1*a*. Draw the Celestial Sphere (C.S.) showing ecliptic and mean and true equators and their poles at time *t*. Enter the heliocentric position S_s of a star at right ascension 21^h, declination +60° referred to the mean equinox at *t*. Draw the meridian and zenith of a place *O*, latitude 60°, if it be 6^H local sidereal time on day *t*. Enter the geocentric position of the sun, if it be local apparent noon. To what day of the year does the diagram belong?

1*b*. Redraw the C.S. as specified under 1*a*, placing the plane of the meridian into the plane of the paper and the zenith at the top. Enter the horizon and mark the South, West, etc., points. Estimate the coordinates of S_s referred to the several systems.

2*a*. Define the geographical latitude of a place on the spheroidal earth and prove that it is measured by a certain arc on the C.S.

2*b*. Towards what point is a star apparently displaced owing to the rotation of the earth round its axis? Derive the amount of the displacement for a star on the meridian, and calculate the approximate value of the constant of aberration for a place at latitude 60°. Radius of the earth $6{\cdot}10^3$ km., velocity of light per second $3{\cdot}10^5$ km. Why is this aberration taken into account only for pole stars?

3*a*. *Parallax.* Derive the formula which connects the local and geocentric true positions of an object at finite distance. Why does the formula also hold good for apparent positions?

3*b*. On the C.S. of a place of latitude $+30°$, containing equator and ecliptic at sidereal time 18^h enter the observed position P_1 of a comet at azimuth 15°, zenith distance 80°. Show the apparent position P and redraw one of the great circles so that P be the local true position.

4*a*. *Precession.* Draw the C.S. showing mean equators and ecliptics and their poles at two epochs t_1 and $t_2 = t_1 + 6000$ years. Find for t_2 the approximate right ascension and declination of a star, which at t_1 stands near the pole of the heavens, and give its meridian zenith distance for a place at latitude 55°.

4*b*. Draw the C.S. showing the equator, ecliptic and the lunar orbit. In what years does the moon reach its greatest possible declination, and in what month if the maximum belongs to the first quarter? (Longitude of lunar node = 85°, 1909·0.)

5*a*. Show that the equation of time is a periodic quantity depending on the obliquity of the ecliptic and the eccentricity of the earth's orbit. [Do not develop into series.]

5*b*. 1909, March 20, at 0^h Greenwich Mean Time the right ascension of the mean sun is $357°\ 22'\ 32{\cdot}4''$ and the equation of time $E = +1°\ 9'\ 15{\cdot}2''$, the sidereal motion and precession are respectively $59'\ 8{\cdot}19''$ and $0{\cdot}14''$ in a mean solar day. Find the right ascension of the sun and the sidereal time on March 30, local mean noon, at a place whose longitude is 90° West of Greenwich. Illustrate by diagram.

SECOND PAPER—ONE HOUR AND A HALF.

(ONE *of each number to be attempted first.*)

1*a*. The Nautical Almanac gives the mean time T_0 of the moon's culmination at Greenwich and the right ascension of the moon for each integer hour Mean Time. Find the Greenwich Mean Time T when the moon culminates on the meridian of longitude λ.

1*b*. The zenith distance of the moon has been measured with a sextant at sidereal time θ. Explain shortly, with the aid of diagrams, how the right ascension of the geocentric moon can be found. (No formulae.) Merely say what quantity can be determined from this right ascension.

2*a*. On the heliocentric celestial sphere let the plane of the orbit of a planet be fixed by the right ascension, N of its node (intersection with equator), and the inclination i of the orbit with reference to the earth's equator. Show the equator, orbit, poles and vernal point in a diagram and find the right ascension and declination of the pole of the orbit in terms of N and i. Assuming N and i to refer to Mean Equinox 1909·0, say how N' and i' can be found with reference to the true equinox 1909, March 20.

2*b*. Choose on the celestial sphere a point towards which the earth is moving at a certain instant and enter the true and apparent places of a star. Point out the spherical triangles by which the right ascension and declination of the true place are found from those of the apparent place.

3*a*. Investigate in what great circle zenith distances ought to be measured for the determination of latitude. Write out the error of the calculated latitude as depending on the errors of zenith distance and time of observation.

3*b*. Define Sumner's line. How would you calculate the position on a map of a short portion of the line (in the neighbourhood of the place of observation)? Say what use is made of the line.

4*a*. Draw the spherical triangle from which the hour-angle of a star at time of transit over the middle wire of a Transit Instrument is obtained as a function of the errors of the instrument.

4*b*. Let a circle be read by one vernier. Find the error of a measured angle caused by the eccentricity of the circle.

5*a*. Let α and δ be the heliocentric right ascension and declination of Jupiter. Find by means of a diagram the jovicentric right ascension and declination of the centre of the shadow cone, D, thrown by Jupiter. On the C.S. round Jupiter enter the ecliptic, earth's equator, and Jupiter's orbit, the orbit of a satellite, the sun, the shadow disc D. What is the period of D? By what method would you find the time when a satellite becomes eclipsed?

5*b*. At a lunar eclipse a great number of star occultations require to be observed. Explain a method by which the times of disappearance and reappearance can readily be predicted.

THIRD PAPER—One Hour and a Half.

(3a and 4a are compulsory questions.)

1*a*. Data: the radius vector (r) of a planet, its true anomaly (v), longitude (N) of the node of the orbit and its inclination (i) both referred to the ecliptic, longitude (π) of the perihelion and obliquity of the ecliptic. Find the heliocentric rectangular coordinates of the planet referred to the equator.

1*b*. Derive a formula of interpolation which gives $f(b+n\omega)$ by $f(b)$ and the successive differences $f'(b+\frac{1}{2})$, $f''(b)$, $f'''(b+\frac{1}{2})$, $f^{iv}(b+1)$, $f^{v}(b+\frac{3}{2})$.

2*a*. At time t and at distance r from the sun, a planet of mass m has the velocity V, angle $V_1r=\psi$. In addition to the attractive force of the sun, a perturbative force acts at time t, whose components are

mR in the direction of the radius vector, mU at right angles to the latter in plane V_1r and mZ at right angles to the plane V_1r. Prove that the perturbations are given by $\delta(V\cos\psi) = R\,dt$ etc., and derive the rate at which the Keplerian coordinate p (parameter) changes.

$2b$. Explain how the perturbations of the Keplerian coordinates (p for example) can be found by Mechanical Quadrature.

$3a$. Let $T = \frac{m}{2}(\dot{x}_1^2 + \dot{x}_2^2)$, and mU be the force function

$$q_1 = (x_1 + ix_2)e^{-nt}, \quad q_2 = (x_1 - ix_2)e^{nt},$$

where $i = \sqrt{-1}$. Find the differential equations for q_1 and q_2 by means of Lagrange's equation.

$3b$. For relative motion of two masses

$$\dot{r} = \pm\sqrt{2a_1}\,\frac{1}{r}\sqrt{-r^2 + \frac{ar}{a_1} - \frac{a_2^2}{2a_1}}.$$

Assuming a_1 positive, show by means of a general theorem that r changes periodically. What is the significance of the double sign?

$4a$. $T = \frac{1}{2A}(A\pi)^2 + \frac{1}{2B}(B\chi)^2 + \frac{1}{2C}(C\rho)^2$ where $\pi = \sin\phi\sin\theta\dot{\psi} - \cos\phi\dot{\theta}$, $\chi = \cos\phi\sin\theta\dot{\psi} + \sin\phi\dot{\theta}$, $\rho = -\cos\theta\dot{\psi} + \dot{\phi}$. $\psi\theta\phi$ are the q coordinates. Find the characteristic function $H(qp)$ on the assumptions that $A = B = C$ and the force function $U = 0$. Write out the partial differential equation for S, integrate and find the integrals of the equations of motion. To what problem does the foregoing belong?

$4b$. ($4a$ continued) Let T_0 be the value of T taken into account in $4a$ ($A = B = C$). Give the differential equations which take T (A, B, C unequal) and U into account. Name the problem that may be solved in this manner.

$5a$. Define Jacobian coordinates $q_1 \ldots q_6$ for three bodies and express the coordinates ξ referred to centre of inertia by $q_1 - q_6$.

$5b$. In the problem of 3 bodies the derivatives by t of the six Keplerian coordinates $ap\omega NiT$ are given by partial differential quotients of $R(ta\omega NipT)$, viz. $\dot{T} = c\frac{\partial R}{\partial a}\ldots$ Introduce into R, e and l instead of p and T by $p = a(1 - e^2)$ and $l = Ha^{-\frac{3}{2}}(t - T) - \omega - N$. Express $\dot{T}$ by partial differential quotients of $R(a\omega Niel)$.

FOURTH PAPER—ONE HOUR AND A HALF.

(*The lecture notes must be used in connection with these questions.*)

1. The series for precession contains a term with t^2. From what three causes does it arise?

2. Motion round two fixed masses. Choose orbit No. 17. (a) Show in a diagram the values of the roots $M(x) = 0$, $L(x) = 0$ relatively to $x = \pm c$. (b) Derive the ranges of q_1 and q_2, mentioning whether there

is libration or limitation. (*c*) Starting from a point whose elliptical co-ordinates are $q_1 = +c$, $q_2 = -\frac{c}{2}$, draw successive points of the orbit and show that it is a spiral.

3. Variation of canonic constants. Prove that, for canonic constants, Lagrange's bracket $[a_r a_s] = 0$.

4. Canonic substitution. Let q and p be conjugated canonic variables. Verify that $x = q^{\frac{1}{2}} p^{-\frac{1}{2}}$, $y = q^{\frac{1}{2}} p^{\frac{3}{2}}$ are also canonically conjugated.

5. $(r/a)^2$ is required to be developed into a periodic series depending on the mean anomaly M. Let $(r/a)^2 = \Sigma Q_n z^n$ where $z = e^{iM}$. Express Q_n by Bessel's functions.

6. Perturbations. (*a*) Give the characteristic function H belonging to the motion of a planet round the sun. (*b*) Let the sun be surrounded by matter uniformly distributed in a spheroid. What is the additional term of H arising from the attraction of the spheroid? (*c*) Show that, owing to the attraction of the spheroid, the longitude of the perihelion increases with time.

7. Perturbations. Copy the formula which determines the change of the longitude of the node of the intermediate orbit and give the term of the perturbative function which explains the retrograde motion of the node.

8. Two masses and a particle. (*a*) Draw Hill's limiting curves for a succession of values of the parameter C, pointing out how the curves change when C increases. (*b*) Find the formula by which the parameter C of the curve passing through libration point L_1 can be calculated for Sun and Jupiter. (*c*) Let the velocity of Jupiter's eighth satellite and its distances from Sun and Jupiter be known at time t_0. How can the question be decided whether the satellite has always been a satellite of Jupiter or not?

CHEMISTRY.

FIRST PAPER—Three Hours.

(*Only* SIX *questions to be answered.*)

1. Explain what is meant by the term "Allotropy," and name all the substances you know which exhibit this property. What suggestions have been made to account for the existence of allotropic forms of the elements?

2. Describe accurately how you would proceed to analyse a mixture of the following gases: Nitrogen, carbon dioxide, methane, and hydrogen.

3. How is cast iron converted into steel? Describe the principal chemical changes occurring in the process.

4. Describe an experiment showing that phosphorous penta-chloride does not dissociate when vaporised in an atmosphere of one of its

dissociation products. Show clearly how the vapour density of the penta-chloride can be calculated from the experimental data.

5. Define the terms, "specific conductivity" and "molecular conductivity" as applied to salt solutions, and state how they are determined practically. What changes are observed in the specific and molecular conductivities respectively of either (1) potassium chloride or (2) magnesium sulphate, when the solution, originally saturated, is diluted with water?

6. What is a eutectic mixture? Describe the behaviour of a mixture of two metals during the process of cooling from the molten state, assuming that a eutectic mixture is formed, and that one of the metals is in slight excess.

7. Describe a method by which elementary fluorine may be isolated. Compare and contrast the properties of fluorides with those of the corresponding chlorides.

8. Discuss the velocity of chemical reaction for the cases of unimolecular and dimolecular reactions. Give an account of any methods that have been employed in the determination of the velocity of chemical reaction.

SECOND PAPER—Three Hours.

(*Only* SIX *questions to be answered.*)

1. Describe the preparation of the two oxy-acids of arsenic and the two corresponding acids of phosphorus. In how many varieties may arsenious oxide exist and how may they be prepared? Give other examples of one and the same oxide existing in different forms.

2. Give a short account of the metallic carbonyl compounds and describe the "Mond" process for the refining of nickel.

3. What different formulae have been proposed for benzene? Discuss the evidence for and against each proposal.

4. Describe the general methods you know by which the olefines may be prepared. How would you prepare 1. 2. dibromoethane, vinyl bromide and glycol, from ethylene?

5. State the chief facts upon which our idea of the constitution of pyridine is based.

6. Give the formulae of the salts of methylamine with hydrochloric acid, nitric acid, sulphuric acid and chloro-platinic acid. How would you prepare methylamine from (*a*) methyl alcohol *or* (*b*) acetamide?

7. How may cinnamic acid be prepared by Perkin's reaction? What homologues of cinnamic acid could be thus obtained? How would you determine the molecular weight of cinnamic acid.

8. Describe the preparation of *p*-iodobenzoic acid from *p*-toluidine.

PHYSIOLOGY—THREE HOURS.

1. Discuss the effects of fasting and of muscular work upon protein metabolism.

2. What light has the study of exogenous purin metabolism thrown upon the endogenous purin metabolism?

3. Discuss the absorption of the products of digestion from the small intestine.

4. How may the arterial blood pressure be measured in man? Describe and explain the effects of running upon the general circulation and upon the intra-cranial circulation.

5. Make a diagram to show the connections of the nerve fibres from the retinæ with the central nervous system. Describe the effects of section of (*a*) the right optic nerve, (*b*) the right optic tract.

GEOLOGY—PART I.

FIRST PAPER—THREE HOURS.

1. In a quarry the following strata are exposed, from the top downwards:

(*a*) Horizontal shales with *Avicula contorta*;

(*b*) Red sandstones, also horizontal, with amphibian footprints and rock salt.

(*c*) Limestones, inclined at 45° to the horizontal, with *Halysites*, *Orthis*, and *Trinucleus*.

Discuss the geological history of the spot.

2. What is meant by the beheading of a river? Illustrate by a sketch-map, and mention, if possible, some example in the British Isles.

3. By what characters would you distinguish Quartz, Topaz, colourless Corundum, and Diamond, occurring together in a sand?

4. Show how a town-atmosphere may affect the following rocks:

(*a*) a limestone containing silicified corals;

(*b*) an olivine-basalt;

(*c*) a sandstone with a calcareous cement.

5. Why is it necessary to be especially careful as to the contamination of water-supplies in limestone areas? What points would you consider before sinking a well in solid limestone?

6. Show by diagrams how the outcrops of inclined strata are affected on a horizontal surface by a fault running in the direction of the dip. How may the same bed be passed through twice in a vertical shaft?

SECOND PAPER—Two Hours

1. What are the following: Encrinites; Hippurites; Stalactites; Ventriculites; Dendrites?

2. Describe the growth of an alluvial fan where a river enters a lake, illustrating, if possible, by instances in the Scottish Highlands.

3. What rocks are there near Glasgow older than the Carboniferous System? and briefly describe their petrological characters.

4. Shew by sketches a crystal containing the faces of the cube, octahedron and rhombic dodecahedron. Mark the faces with Miller's symbols and explain these symbols in each case.

5. Describe the following minerals, stating their chemical composition, optical characters, characteristic forms, and the crystallographic system to which each belongs: hornblende, muscovite, orthoclase, zircon, haematite.

GEOLOGY—Part II.

FIRST PAPER—Three Hours

1. What are the usual relations of the rocks of Devonian age in the British Isles to those upon which they rest? Why are the rocks of this age in South Wales so different from those of Devonshire?

2 Compare the Jurassic strata of Scotland with those of the Cotteswold Hills of Gloucestershire, and state your conclusions as to the geographical conditions under which the Scottish series was laid down.

3. Draw a sketch-section across the Cambrian and associated rocks of the North-west Highlands of Scotland, pointing out the problem that has arisen from their relations in the field.

4. Describe the ways in which banded gneisses may arise.

5. What is trough-faulting? How has it ordinarily been brought about? What effects may it occasionally have on the surface of a country?

6. What are the general characters of the section of Bryozoa known as the Cyclostomata? In what strata are they abundant?

SECOND PAPER—Two Hours.

1. Show by a consideration of the ancient types of Brachiopoda, the gradual approach of the brachiopod faunas towards that of the present day.

2. What are the conditions under which tin ore is usually found? What minerals are likely to be of service in indicating the probability of the occurrence of tin in any district?

3. Classify the chief types of gold mines and describe a representative of some one type.

4. Describe the quartz wedge and its use in petrography.

ZOOLOGY.

(Under regulations before 1909.)

FIRST PAPER—Three Hours.

(*Not more than* FIVE *questions to be attempted.*)

1. Give an account of radial symmetry occurring in animals.

2. What is meant by the terms "membrane bone" and "cartilage bone"? Give numerous examples of both in the skull, also in other parts of the skeleton. Discuss the value of the distinction between these two kinds of bones. Mention instances of cartilage occurring in intimate relation with a bone which by its origin is a membrane bone.

3. Describe the limb skeleton of the Horse and explain what is the nature of the evidence that the Horse has descended from a five-toed ancestor.

4. Describe generally the modifications of the series of aortic arches which take place during development in the various groups of Amniote Vertebrates.

5. Write a short account of the "Germ Layer Theory," and discuss its importance in deciding questions of morphology.

6. Write a short account of the breathing mechanism in Insects.

7. Describe the development of the coelom in any Echinoderm.

8. Chiton and Nautilus are said to be relatively "primitive" in their structure as compared with other Molluscs. Point out any structural peculiarities which in your opinion support this statement.

SECOND PAPER—Three Hours.

(*Not more than* FIVE *questions to be attempted.*)

1. Mention the chief points of interest concerning, and explain the systematic position of the following: Decalopoda, Lernaea, Anaspides, Cyamus, Cecidomyia, Gastrophilus.

2. Give an account of viviparity in the animal kingdom, and allude briefly to any special features of maternal structure in the several cases.

3. State where the following animals are found, and explain briefly the systematic position of each: Okapia, Limnocnida, Llama, Nautilus, Rhea, Chlamydoselachus, Lepidosiren, Xenopus (Dactylethra), Sphenodon (Hatteria), Dermochelys (Sphargis), and Proteus.

4. Describe the Nauplius and Zoaea types of larva. What do you consider to be their significance in regard to the phylogeny of the Crustacea?

5. Describe the mouth parts of an Orthopterous insect, and point out in what respects the mouth parts of (*a*) a Bee, (*b*) a Bug, and (*c*) a Butterfly differ from those of the Orthoptera.

6. In which Arthropods do organs occur which have for their function the production of light? Describe the structure of any such organ.

7. State the grounds upon which Limulus is now commonly classified with the Arachnida.

8. Write a short general account of the Rhynchostomi (Acarina)

ZOOLOGY.

(Subsidiary subject to Botany.)

PROTOZOA—THREE HOURS.

(Not more than FIVE *questions to be attempted.)*

1. By what would you be guided in determining whether a given unicellular organism is an animal or a plant?

2. Give a general account of the occurrence of various Coccidia, and give a detailed account of the life history of the Coccidium that occurs in the Centipede.

3. Give a general account of the Mycetozoa.

4. Give an account of the skeleton of the Foraminifera with special reference to form and material.

5. Give an account of Schaudinn's researches upon Proteosoma (Halteridium) noctuae; point out in what their importance consists, and indicate in what respects they appear to need confirmation

6. Write a short essay on "Protozoa as parasites and as causes of disease."

7. Describe the life history of Actinosphaerium. What differences in the changes that occur within the mother-cyst may be brought about (*a*) by lowering the temperature, and (*b*) by raising the temperature?

8. Explain fully, giving when possible illustrative examples, the following terms: kinetonucleus, micronucleus, myoneme, schizogony, sporozoite, chromidium, karyosome.

ZOOLOGY.

(Subsidiary subject to Physiology.)

VERTEBRATE MORPHOLOGY—THREE HOURS.

(Not more than FIVE *questions to be attempted.)*

1. Give an account of the development of the skull in some Vertebrate.

2. What are the special points of interest concerning Sphenodon (Hatteria)? Why is this animal not classed with the Lizards?

3. Explain how, on the Darwinian hypothesis of evolution, the following organs may have arisen: antlers of Stage, mammary glands, whalebone, the trunk of the Elephant.

4. Compare the general arrangement of the amnion, allantois and yolk-sac in (*a*) the Rabbit, (*b*) Monotremes, (*c*) Marsupiala, and (*d*) Man.

5. Describe generally the modifications of the series of aortic arches which take place during development in the various groups of Amniote Vertebrates.

6. What is meant by the term holonephros or archinephros? Discuss the bearing of this conception upon ideas as to the evolution of the renal organs in Vertebrates.

7. In which Vertebrates do "electrical organs" occur? Describe their structure in any one type and indicate how they have probably been developed.

8. Write a short comparative account of the lung in (*a*) Crossopterygians, (*b*) Teleosts, (*c*) Dipnoi, and (*d*) Amphibia.

BOTANY.

FIRST PAPER—Three Hours.

1. Give an account of the sensitiveness of the root-tip, naming the various external influences that affect it. Point out the biological importance of the reaction in each case.

2. Describe the disease known as "Coral Spot" (Nectria cinnabarina), and what means you would use to check it. Point out the systematic position of the fungus.

3. Give a full account of the substances taken up from the soil by roots, explaining the physiological importance of each.

4. Describe in detail the laticiferous system: state the distribution of laticiferous tissues in plants at large, and discuss their physiological use to the plant.

5. Discuss fully the origin of the Gamopetalous condition in Angiosperms.

6. Give a full account of the Mangrove vegetation.

SECOND PAPER—Three Hours.

1. Describe the life-history of Dictyota Dichotoma, giving the cytological details. Explain fully the importance of the facts in their bearing upon theories of alternation.

2. Give an account of the fructifications of any two of the Florideae you may select, and compare them.

3. Give a full account of the Anthoceroteae.

4. Discuss the position of solenostelic Ferns in their relation to the protostelic types on the one hand, and on the other to dictyostelic types.

5. Describe the structure of the flower in the Saxifragaceae, and compare it with that of the Crassulaceae on the one hand, and of the Rosaceae and Leguminosae on the other.

6. Give a general sketch of the vegetation of the coal period.

B.—IN ENGINEERING.

FIRST EXAMINATION.

MATHEMATICS.

FIRST PAPER. Three Hours.

(Note.—*Candidates may obtain full marks by doing correctly about* TWO THIRDS *of this paper.*)

1. Explain the geometrical representation of complex quantity.
Obtain geometrically all the values of $\sqrt[4]{(-1)}$.

Prove that if $\cos\theta = \frac{1}{2}\left(x + \frac{1}{x}\right)$, then

$$\cos n\theta = \frac{1}{2}\left(x^n + \frac{1}{x^n}\right), \quad \sin n\theta = \frac{1}{2i}\left(x^n - \frac{1}{x^n}\right).$$

2. Prove that if n is a positive integer,

$$\tan n\theta = \frac{n_1 \tan\theta - n_3 \tan^3\theta + \ldots}{1 - n_2 \tan^2\theta + \ldots},$$

where $$n_r = n!/(n-r)!\,r!.$$

Prove also by division or otherwise, that

$$\tan n\theta = n\tan\theta + \frac{n\,.\,\overline{n^2-1}}{3}\tan^3\theta + \frac{n\,.\,\overline{n^2-1}\,.\,\overline{4n^2-6}}{30}\tan^5\theta + \ldots$$

3. If the sides and angles of a triangle are slightly varied, while leaving unchanged the area, find the changes of the sides in terms of the changes of the angles and prove that

$$2\left(\frac{\delta a}{a} + \frac{\delta b}{b} + \frac{\delta c}{c}\right) + \frac{\delta A}{\tan A} + \frac{\delta B}{\tan B} + \frac{\delta C}{\tan C} = 0.$$

Prove also that $\cos A\,\delta a + \cos B\,\delta b + \cos C\,\delta c = 0$.

4. Find the equation of the parabola with axis parallel to Ox, which passes through the three points $(-2, 1)$, $(1, 5)$, $(2, -3)$.
Prove that the equation of the tangent to this parabola at the first of these points is $$y - 4x - 9 = 0.$$

5. Trace the connection between perpendicular diameters in a circle and conjugate diameters in an ellipse.
Prove that for all values of the parameter λ, the line

$$\left(\frac{x}{a} - 1\right)\lambda - 2\frac{y}{b} - \left(\frac{x}{a} + 1\right)\lambda^{-1} = 0,$$

touches the ellipse $$x^2/a^2 + y^2/b^2 - 1 = 0.$$

6. Taking the equation of a hyperbola referred to its axes,

$$x^2/a^2 - y^2/b^2 = 1,$$

reduce it to the form $$xy = \tfrac{1}{4}(a^2 + b^2),$$

in which the coordinate axes are the asymptotes.

From a point P two lines PQ, PR are drawn parallel to the asymptotes to meet the curve in Q, R. Prove that if the line QR passes through a fixed point, the locus of P is a hyperbola.

7. Find the coordinates of the centre and the equations of the axes, for the conic $$11x^2 + 14y^2 + 4xy + 18x - 24y + 19 = 0.$$

Find also the simplest form of the equation of this conic.

8. Define the terms *limit*, *continuous function*, *derived function*.

Find from first principles the derivatives with respect to x of $\sin x$, $\tan^{-1} x$, $\sqrt[3]{(a+x)}$, $\log_{10}(1+x)$.

9. Write a note on the determination of the maxima and minima values of a continuous function.

Make graphs of the three functions:

$$y = \frac{(x-1)(x-3)}{(x-2)(x-4)}, \quad y = \frac{(x-1)(x-2)}{(x-3)(x-4)}, \quad y = \frac{(x-2)(x-3)}{(x-1)(x-4)},$$

and fine their maxima and minima.

10. Prove that in the curve $y = \cosh x$, the radius of curvature is equal to the intercept on the normal between the curve and the axis of x.

Show that the coordinates of any point on the locus of the centre of curvature at the point (ξ, η) are given by $(\xi - \cosh\xi \sinh\xi,\ 2\cosh\xi)$.

Show that in the neighbourhood of the vertex the equation of this locus takes the form $9x^2 = 4(y-2)^3$.

11. Integrate the forms:

$$\text{(i)} \int \sin^3 x\,dx, \qquad \text{(ii)} \int \frac{dx}{(1+x^2)^2}, \qquad \text{(iii)} \int \sqrt{\frac{x-a}{x-\beta}}\,dx,$$

$$\text{(iv)} \int x^2 \log(1+x)\,dx, \qquad \text{(v)} \int \sinh x \sin x\,dx.$$

12. State and prove Pappus' Theorem on the surface and the volume of surfaces of revolution.

An anchor ring formed by the revolution of a circle about an axis is cut into two portions by the cylinder with generators parallel to the axis, which passes through the locus of the centre of the revolving circle. Prove that the surfaces of the two portions differ by four times the area of the circle.

13. Prove that $$\int_2^{\frac{10}{3}} \sqrt{\{(10-3x)(x-2)\}}\,dx = \frac{2\sqrt{3}}{9}\pi.$$

Show that the ellipse

$$x^2 + xy + y^2 - 3x + 2y + 6 = 0$$

touches the lines $x = \frac{10}{3}$, $x = 2$, and that the above integral measures its area.

SECOND PAPER—See p. 619.

Natural Philosophy—First Paper—See pp. 621–623.

" " —Second Paper—See pp. 624, 625.

Chemistry—See p. 630.

FINAL EXAMINATION.

NATURAL PHILOSOPHY.

SPECIAL HIGHER PAPER—Three Hours.

(Note.—*Candidates must not attempt more than* EIGHT *of the following questions.*)

(*Candidates taking this paper who have not passed in Ordinary Natural Philosophy of the First Science Examination* MUST *attend and take the Second Ordinary paper. See p. 624.*)

1. Describe the rectilinear motion of a particle whose distance from a fixed point in its line of motion is given by $x = a + b\cos\omega t$.

A and B are two points at a distance d apart. A particle moves in the line AB, its velocity at any time t being given by $\sqrt{c\sin\omega t}$, d, c and ω being constants. Prove that if the particle start from A it will never reach B if d is greater than $\sqrt{2c/\omega}$.

2. A circle rolls without slipping along a horizontal straight line with angular velocity ω and angular acceleration $\dot{\omega}$. Derive expressions for the horizontal and vertical components of acceleration for any point on the circumference of the circle.

Supposing the velocity of the centre of the circle to be v and its acceleration α, find the horizontal and vertical components of velocity and acceleration for the highest and lowest points of the circle.

3. A body of mass M is suspended by two long parallel cords of length l at a distance $2a$ apart. Prove that if the body be rotated through a small angle θ about the vertical axis of symmetry, the restoring couple is approximately $Mga^2\theta/l$.

A wheel is suspended with its plane vertical by a horizontal axis at a distance a from its centre and the period of a small oscillation is found to be t_1. The wheel is then suspended by two parallel cords of length a at distance $2a$ apart, the plane of the wheel being *horizontal* and the period of a small oscillation about the vertical axis of symmetry is found to be t_2. Prove that $$(t_1^2 - t_2^2) = 4\pi^2 a/g.$$

4. A rigid body is in motion so that every point moves parallel to a fixed plane. Write down an expression for the moment of momentum about an axis perpendicular to the plane, in terms of the angular velocity and the velocity of the centroid. Under what circumstances will the moment of momentum about the axis remain constant?

A homogeneous sphere of radius r spinning with angular velocity ω about a horizontal diameter, is gently placed on a horizontal table with which its coefficient of friction is μ. Show that there will be slipping at the point of contact for a time $2\omega r/7\mu g$, and that then the sphere will roll with uniform angular velocity $2\omega/7$.

5. Explain what is meant by the centre of oscillation of a compound pendulum and prove that a horizontal blow applied at the centre of oscillation, while the pendulum hangs vertical, produces no impulse at the axis of suspension.

A uniform rod AB of length $2l$ and mass M is hinged at A and carries a particle of mass M at B. Prove that a blow, applied perpendicularly to the rod, at a distance $\frac{2}{9}l$ from B, produces no impulse at the hinge.

6. Prove that couples acting on a rigid body may be compounded by combining their axes according to the parallelogram law. [You may assume that a couple can be replaced by any other of equal moment in the same or in a parallel plane.]

A right circular cylinder of radius r is acted on by a force P along, and a couple G round, its axis, and also by a force Q tangential to the circumference and perpendicular to the axis. Prove that the system is equivalent to a force $R=\sqrt{P^2+Q^2}$ and a couple of moment

$$(P\,.\,G+P\,.\,Q\,.\,r)/R$$

the axis of the couple coinciding with the direction of R.

7. Show that a uniform heavy flexible inextensible string supported from two points A, B will hang in the form of the curve $c\sec^2\psi=\rho$ where ρ is the radius of curvature at any point and ψ the inclination to the horizontal of the tangent at that point.

Assuming that the force exerted by the wind on a flexible ribbon is at each point entirely normal to the ribbon and proportional to the square of the normal component of the wind's velocity, show that a ribbon attached to two points P, Q will assume the form of a catenary. [Take PQ perpendicular to the direction of the wind and neglect the weight of the ribbon.]

8. Derive the expression EI/ρ or $EI\dfrac{d^2y}{dx^2}$ for the bending moment at a section of a slightly bent beam.

A beam resting on a smooth plane is firmly clamped at one end and a horizontal force F perpendicular to the beam is applied at a point distant x_1 from the fixed end. Find the deflection at a point B whose distance from the fixed end is x_2 (x_2 being greater than x_1), and show that the same deflection would be given to the point A by removing F from A and applying it at B.

9. Derive the expression $k^2/\bar{y}$ for the depth of the centre of pressure of a plane area wholly immersed in fluid.

Find the depth of the centre of pressure for a square plate whose diagonal is of length $2d$, immersed with one diagonal vertical and a corner in the surface. Prove that if the plate be rotated about its horizontal diagonal, the centre of pressure will describe a circle whose centre is on the vertical through the centre of the square.

10. Derive the equation of equilibrium of a fluid, viz.:

$$dp = \rho(Xdx + Ydy + Zdz).$$

Hence show that if the atmosphere be considered at rest and at uniform temperature the pressure p at a height h above sea-level is given by $p = p_0 e^{-\frac{h}{H}}$, where p_0 is the pressure at sea level and H is the height of the homogeneous atmosphere.

Find the height at which the pressure is nine tenths of its value at the surface. [At sea level the height of the water barometer is 10·3 metres, density of air is ·00129 grams. per c.c.]

11. Explain how it is that the centre of gravity of a floating body may be above the centre of buoyancy and yet the equilibrium be stable. Deduce Atwood's expression for the righting moment.

A rectangular block of wood of length l, depth d, breadth $2d$, specific gravity 0·5, floats in water with the edges of length d vertical. Prove that if the motion of the water be neglected, the period of a small oscillation about the axis parallel to the length of the block is

$$2\pi\sqrt{d/g}.$$

12. What information is furnished by thermodynamics as to the density of saturated steam at different temperatures?

Explain how the determination of this density was attempted by Fairbairn and Tate.

13. Prove the thermodynamic equation

$$\frac{dL}{dt} + c - h = \frac{L}{t},$$

where L is the latent heat and h the specific heat of a vapour, c the specific heat of the liquid, and t absolute temperature. Show from Regnault's expression for the total heat of steam, that in this case h is negative. Explain the meaning of this result.

ENGINEERING.

FIRST PAPER—Two Hours.

(*Only* SIX *questions may be attempted.*)

1. Give a brief description of the processes by which pig iron is produced from clayband ironstone. Explain the principal chemical reactions in the processes and state approximately and account for the composition of the gases leaving the blast furnace.

2. Describe the Open Hearth process for the manufacture of mild steel, and state some of the advantages that the process has over the Bessemer process.

3. Describe the successive effects of an increasing pull stress applied to a specimen of wrought iron or of mild steel, and sketch approximately

to scale the stress strain diagram for a specimen $1\frac{1}{8}''$ diameter and $8''$ in length between the gauge points. How would the diagram be modified were the specimen $16''$ in length between the gauge points?

How could you determine whether a given piece of metal is wrought iron or very mild steel?

4. Give a short account of the processes by which aluminium is reduced from its ores, and state some of the chief uses of the metal.

5. The maximum value of the coefficient of friction between the driving wheels of a locomotive and the rails is 0·3; the weight upon the driving wheels of the locomotive is 80 tons, and the weight of the train, including the locomotive, is 400 tons. Find the maximum acceleration of the train (*a*) on a level rail, (*b*) on a gradient of 1 in 100 if the frictional resistances to motion are 20 lbs. wt. per ton of train.

6. Power is being transmitted by a belt drive; the tensions in the tight and the slack sides of the belt are T_1 and T_2 respectively. Deduce an expression for the ratio of T_1 to T_2 in terms of the lap of the belt, etc.

200 H.P. is to be transmitted from a pulley 10 feet diameter making 120 revs. per min. to a pulley 5 feet diameter by means of ropes, having a breaking strength of 8000 lbs. per sq. inch of apparent sectional area. If the ratio of the tensions on the two sides of the pulley be 4 to 1, find the number of ropes of a reasonable size required.

7. Determine graphically and by calculation the bending moment and shearing force diagrams for the loaded beam shown on the accompanying sheet. The scales of the B.M. and S.F. diagrams must be given.

8. With reference to mechanisms, explain and give illustrative examples of the terms "kinematic chain" and "inversion."

Describe, with sketches, any form of quick return motion suitable for a small planing or shaping machine, and show how to determine, with sufficient accuracy for practical purposes, the maximum cutting speed of the tool for a given speed of the driving shaft.

9. Explain, with the aid of sketches drawn approximately to scale, how you would determine the moment of inertia of a steam engine fly-wheel which would maintain the engine speed within defined limits during a revolution, the indicator diagrams and other necessary data being given.

Take into account the effect of inertia of the reciprocating parts, and show how to determine the scales of all diagrams employed.

10. Sketch diagrammatically and describe the Stephenson open link reversing gear for a steam engine, and explain how it can be used to control the power developed by the engine. Illustrate your answer by means of indicator diagrams corresponding to various positions of the gear. Describe briefly how this gear may be operated by power for use with large engines.

SECOND PAPER—Two Hours.

(*Not more than* SIX *questions are to be attempted.*)

1. Classify the various obstructions to be met with in chain surveying, and describe in detail, for each class, one method of overcoming the obstructions.

In a survey of a field roughly triangular in form *A*, *B* and *C* are the principal stations, and *D* a station in the line *AB*. The measured lengths *AD*, *DB*, *BC*, *CA* and *CD* are recorded as 345, 400, 674, 560 and 490 links respectively. Ascertain whether these measurements check.

2. In a closed traverse survey, *ABCDA*, the following measurements were made:

Line	Distance in Links.	Measured Angle	Bearing.
AB	8,054		70° 54'
		120° 00'	
BC	7,235		
		116° 30'	
CD	5,340		
		72° 30'	
DA	13,820		

Ascertain by the method of northings, southings, etc., whether the measurements check.

3. Explain the meaning of the term 'magnetic declination' and give, approximately, its value at the present time at Glasgow.

Describe in detail one method of determining the true meridian of a place on the earth's surface.

4. Determine by the "Mean Areas," "Mean Heights" and "Prismoidal" methods the volume of a block of earthwork one chain in length, 24 wide at formation surface, side slopes 1½ to 1, and end heights 12 feet and 22 feet respectively; assuming the ground level in cross section. Discuss the relative merits of the methods with respect to their probable accuracy for the determination of the total volume of a railway cutting through a hill.

5. Describe, briefly, the construction of either a Y or a transit theodolite; sketch in section the telescope, and explain the use of the eye piece. How would you proceed to ascertain if the line of collimation and bubble tube are in proper relative adjustment, and if not in adjustment how would you proceed to remedy the defect?

6. In levelling for a section the following readings were taken in succession: 8·54, 7·30, 4·20, 1·42, 5·86, 3·10, 6·70, 12·68, 6·73, 9·60, 7·60, 3·28. The level having been moved between the 4th and 5th readings, and again between the 8th and 9th readings, and the first reading having been taken on a bench mark having a reduced level of 120 feet, enter the readings in the form of a level book, assuming any data omitted, cast up the book and ascertain if your arithmetic checks.

State under what circumstances you would consider it necessary to take into account the effect of the curvature of the earth, and of atmospheric refraction in levelling operations, and explain, by a numerical example, how this would be done in a case for which you assume the necessary data.

7. Two straight reaches, *AB* and *ED*, of a railway intersecting, when produced, at an angle of 85° are to be connected by a circular curve, *BD*, of 25 chains radius. If the chainage to the point of intersection of the "straights" be 846·32, determine the chainage of the tangent points *B* and *D*, and describe in detail how you would proceed to set out the curve on the ground, making the necessary calculations for the purpose.

8. Explain how you would proceed in the field to set out the "half breadths" for a railway cutting when the ground has an irregular side-long slope.

Calculate the half breadths, assuming the side-long slope of the ground to be uniform and equal to 10 (horizontal) to 1 (vertical), the side slopes to be $1\frac{1}{2}$ to 1, the breadth at formation 24 feet and depth to centre of formation surface 25 feet.

9. What is "sewage"? Discuss the relative advantages of "combined" and "separate" systems for drainage of small towns, and state the general regulations of the Local Government Board as to the quantities for which preparation is to be made in any scheme of sewage disposal.

THIRD PAPER—Two Hours.

(*Not more than* SEVEN *questions are to be attempted.*)

1. With regard to steam, explain the meaning of the following terms: "total heat at constant pressure," "internal energy," "external work" and "latent heat." Discuss the difficulty in exactly defining the term "dry saturated steam."

2. Discuss the assumptions involved in the calculation of the calorific value of coal from its analysis, and describe a means of determining the calorific value by experiment. State, with reasons, which of these methods gives the more trustworthy results.

3. Describe the Carnot heat engine cycle, and show how the Rankine-Clausius cycle for an ideal steam engine differs from it.

In what respects does the behaviour of steam in an actual condensing engine differ from that assumed in the Rankine-Clausius cycle?

4. State the conditions for maximum thermal efficiency of a heat engine, and discuss in connection therewith the bearing of the Second Law of Thermodynamics.

5. Define entropy. Describe with sketches the construction of a temperature entropy chart for water and saturated steam, showing lines of constant dryness fraction, and of constant volume. Show also the form of the constant volume and constant pressure lines for superheated steam.

How are the heat exchanges in the operation of the Rankine Clausius cycle represented on the chart?

6. Discuss the effect upon the economy of steam engines of (*a*) steam jacketing, (*b*) superheating, (*c*) increase of speed. State with reasons the circumstances under which the effect of steam jacketing is most marked.

7. In a two-cylinder double acting compound engine steam is admitted to the H.P. cylinder at 145 lbs. per sq. in. absolute and cut off at 0·7 of the stroke. The volume of the L.P. cylinder is 2·7 times that of the H.P. cylinder, and the clearance at each end of each cylinder is 5 per cent. of the stroke volume. The exhaust pressure is 4 lbs. per sq. in. absolute. Assuming a diagram factor of 0·8, based upon the usual reference diagram, find the cylinder dimensions in order that the engine may develop 400 I.H.P. at a piston speed of 500 ft. per minute.

8. Describe in detail how you would proceed to determine the brake horse power of a gas engine of say 30 B.H.P. Discuss the use of a dashpot in connection with brake dynamometers.

9. Describe, with diagrammatic sketches, the action of a vapour compression refrigerating plant.

What is meant by the "coefficient of performance" of a refrigerator, and what are the conditions for maximum value of this coefficient?

10. With respect to the balancing of engines, explain what you understand by "primary" and "secondary" inertia forces. Describe how you would proceed to determine the arrangement of the crank angles, etc., of a four crank engine so that the primary forces and primary couples may be balanced, the centre lines of the cylinders being given.

State to what degree two, three, four, and five crank engines can be balanced.

11. Describe in general the construction and action of the Curtis and the Parsons steam turbines, pointing out any fundamental differences in the action of the steam in the two cases.

Why is the difference in economy at full power and at half power much more marked in the case of a Parsons marine steam turbine than in that of a reciprocating engine?

12. Describe, with sketches, the construction and action of any type of gas engine, and state approximately the fuel consumption per B.H.P. hour and the proportional amount of the various heat losses. Discuss the effect upon the performance of the engine of high compression, and of scavenging.

FOURTH PAPER—THREE HOURS.

(*Not more than* EIGHT *questions to be attempted.*)

1. Define Young's Modulus (E), Modulus of Rigidity (G), Bulk Modulus (K), and Poisson's Ratio $\left(\frac{1}{m}\right)$, and investigate a formula giving m in terms of E and G.

2. A beam of uniform section is continuous over three supports forming two equal spans, and is loaded with two equal loads, one concentrated at the mid-point of each span. Assuming any formulae relating to cantilevers, determine the maximum deflection in the beam.

3. In a four-wheel coupled locomotive the diameter of the driving wheels is 6 ft., the length of the wrought iron coupling rod is 8 ft., and the crank radius (to the centre of the coupling-rod pins) is 10 in. Assuming the coupling rod to be of uniform section 6 in. deep × 2 in. broad, determine the maximum unital stress in the rod due to its inertia when the speed of the locomotive is 60 miles an hour.

4. A beam of 20 ft. span is simply supported at both ends and acted upon by two concentrated loads of 12 tons and 16 tons respectively, which move across the beam from end to end.

Assuming the fixed distance between the loads to be 8 ft., sketch the diagrams of maximum bending moments and shearing forces, and determine the numerical value of the greatest bending moment in the beam and the point along the span at which it occurs.

5. In respect to the determination of stresses in framed structures, explain, and illustrate by examples justifying two applications of the principle of substituting one frame for another.

6. State and explain the chief theorems relating to similar structures, and discuss their bearings on the design of railway bridges of spans varying from the smallest to the largest used in practice.

7. Show how to determine the horizontal thrust, the direct thrust, the shear and the bending moment at any point of a three-hinged arched rib acted upon by a single concentrated load, and explain how you would proceed to draw a funicular polygon passing the centres of the hinges for a number of concentrated loads acting upon the rib.

8. A steel shaft is required to transmit 500 horse power at a speed of 120 revs. per min.

What should be the diameter of the shaft if the maximum unital stress allowed is 13,500 lbs. per sq. inch and the maximum torque equal to $\frac{4}{3}$rds the mean torque? and what will be the angle of twist per foot length of shaft?

Take the modulus of rigidity as 11,000,000 lbs. per sq. inch.

Prove the formulas you use, and state the assumptions upon which they are based.

9. In respect to revolving masses of water investigate the surface form, (*a*) when the angular velocity of rotation is constant, (*b*) when the sum of the potential and kinetic energies is constant throughout.

Illustrate the bearing of these cases upon the action of the centrifugal pump.

10. In respect to the flow of water through pipes explain the meanings of the terms: "virtual slope," "hydraulic mean depth," "free level locus" and "pressure head."

A clean cast-iron pipe 2 ft. in diameter and 8 miles in length connects two reservoirs in which the difference of free levels is 45 feet.

Calculate the probable flow through the pipe in gallons per hour, explaining the formula you use for the purpose and the assumptions upon which it is based.

11. Investigate expressions for the power and efficiency of a Scotch turbine (Barkers Mill).

If the available head is 9 feet, the radius to the centres of the orifices 15 inches and the combined area of the orifices 6 square inches, determine the power and efficiency of the turbine when the velocity of the orifices is equal to that due to the head.

[Neglect friction in the passages and assume the usual coefficient of discharge for well constructed nozzles.]

12. Describe, with the aid of sketches, a vortex turbine and a Girard radial outward flow turbine, explaining the difference of the action of the water in the two cases and the circumstances under which each in turn would be preferable to the other. What conditions require to be fulfilled to get unit efficiency of a turbine?

ENGINEERING DRAWING AND DESIGN

FIRST PAPER—THREE HOURS.

(*Not more than* SIX *questions are to be attempted.*)

1. A cam revolving uniformly is to raise a tappet 3″ in a half revolution, maintain it in its elevated position for a quarter revolution and lower it to its initial position during the remainder of the revolution, the rise and fall of the tappet being harmonic and its line of motion passing through the axis of the cam shaft. Draw, full size, a profile of the cam, adopting the following data: diameter of shaft 2″, least thickness of boss of cam 1¼″, diameter of tappet roller 1″.

2. Show, by the aid of sketches, how you would determine:

(*a*) The projections of a line 3″ in length between its traces and inclined to the H.P. and V.P. at 45° and 30° respectively.

(*b*) The distance of a point P on the ground line from a given oblique plane.

(*c*) The angle between the ground line and a given oblique plane.

3. Determine the shortest distance between the two lines AB and CD shown on the accompanying sheet.

4. Draw the plan of a regular octahedron of 1½″ edge when resting with one face on the H.P. Determine the plan and true shape of the section made by a plane containing a diagonal of the solid and inclined to the H.P. at an angle of 60°.

5. Make an isometric projection of the object represented on the accompanying sheet.

6. Three spheres of 1″, 1½″ and 0·5″ in diameter, respectively, rest in contact with one another on a plane the vertical and horizontal traces of which make angles of 45° and 60° respectively with the ground line.

Draw a plan and elevation of the spheres and the traces of the plane touching them at their upper surfaces.

7. Draw the curves of intersection between the sphere and the prism shown on the accompanying sheet.

8. Draw a diagram of stresses for the loaded frame shown on the accompanying sheet.

SECOND PAPER.—Three Hours

Part I.

(*Question* 1 *and* ONE *other question only to be attempted.*)

1. With respect to materials of construction explain the meanings of the terms : "statical strength," "primitive strength," "vibration strength" and "factor of safety."

Give a formula for the strength of a structural member subject to often-repeated and varying stresses in terms of the statical strength and ratio of minimum stress to maximum stress; explain the assumptions on which it is based and show how it is obtained.

2. The axle-loads *a*, *b*, *c*, *d*, and *e* of a locomotive are 10, 15, 20, 20 and 10 tons respectively, and the successive intervals between the axles are 9, 7, 8 and 8 feet. Determine, graphically, the maximum bending moment and maximum shear produced by the (single) locomotive in moving across a bridge having an effective span of 50 feet, and calculate the corresponding equivalent uniform live loads.

3. Design and make a sketch of a cast iron spur wheel having a diameter of 5 feet and suitable for transmitting 300 horse power at a speed of 120 revs. per minute, assuming the eye of the nave 7″ in diameter, and the teeth of the wheel carefully fitted and subject to moderate shock.

4. Show how you would deduce a general formula connecting diameter, ideal core-length, speed and K.W. output for a continuous current machine. What will be the probable values of the various quantities in the formula in the case of a 150 K.W., 500 V., 420 R.P.M. continuous current generator?

Part II.

(ONE *question only to be attempted.*)

1. A double-track railway bridge is to have two main girders of 63 feet clear span. Design and make detailed drawings of one of the girders, assuming the dead load to be one ton per foot run and the equivalent live load two tons per foot run for each track.

2. Design and make detailed drawings of the shell of a marine boiler having a diameter of 10 feet, and a length of 9 feet 6 inches suitable for a working (gauge) pressure of 120 lbs. per sq. inch, paying particular attention to the longitudinal and transverse joints.

3. Calculate the main dimensions and make detailed drawings of the armature core and field magnet frame for the 150 K.W. generator given in question 4, Part I. Also design the armature winding for this machine.

GENERAL LABORATORY EXAMINATION

THREE HOURS

(THREE *questions are to be attempted, of which* ONE, *and* ONE ONLY *must be from Group A.*)

In answering each question you are to deal with (a) the apparatus and instruments employed, (b) the setting up and adjusting of the apparatus, (c) the booking of observations, (d) the calculation and probable accuracy of the results.

A

1. Describe how you would carry out a complete trial of a steam boiler of any ordinary land type, in order to determine its efficiency and the distribution of the various heat losses.

2. Describe fully what arrangements you would make to accurately measure the flow of water in a stream which is estimated to discharge approximately 500 gallons per minute. Give approximate dimensions of the apparatus you propose. Would you consider it necessary to specially calibrate the measuring appliances used? Explain how such apparatus may be calibrated.

3. Describe how you would carry out tests on a polyphase alternating current generator with constant line current and with loads of constant power factor, $\cos\phi = 1{\cdot}0$ and $\cos\phi = 0{\cdot}8$. How would you measure the power and make certain that $\cos\phi$ was maintained constant during each test?

4. Describe carefully any method you would employ for the complete separation and determination of the various losses in a continuous current generator.

B.

5. How would you determine experimentally the velocity ratio and the efficiency of the hoisting gear of, say, a 5 ton travelling crane? Discuss the question of overhauling in the case of the crane you describe.

6. Describe fully how you would determine the indicated horse power, brake horse power, and steam consumption of a 50 H.P. compound condensing steam engine.

7. How would you carry out a complete tensile test for the determination of Young's modulus, percentage elongation and ultimate strength of either a steel bar specimen about $\frac{5}{8}$ inch diameter r a steel plate specimen about 2 inches × $\frac{1}{2}$ inch? Describe a form of utographic stress-strain recorder suitable for use with the machine ou refer to.

8. How would you carry out tests on a water motor under a onstant head to determine the variation of efficiency with (*a*) variaion of speed at constant regulator opening, (*b*) variation of brake orse power at constant speed.

9. Explain the principle of the potentiometer method of measuring an E.M.F.

How would you use a commercial form of this instrument to calibrate an ammeter with a range from 0 to 50 amperes and a voltmeter with a range from 0 to 250 volts?

10. How would you determine experimentally the B-H curve for a specimen of, say, mild steel? Give approximate dimensions, number of turns, etc., for the apparatus you use.

11. How would you determine the efficiency of a single phase alternating current transformer at different loads and at constant power factor? How would you deduce from your results the constants for the equivalent transformer diagram?

GEOLOGY—See p. 688.

ELECTRICAL ENGINEERING.

CLASS I.—THREE HOURS.

(*Only* SEVEN *questions may be attempted.*)

1. Define Potential difference. Coulomb, Ampere, Volt, Ohm, Watt, Joule and B.O.T. unit of electrical energy.

What are the relations existing between Watts, Joules, ergs and horse-power?

2. What are the advantages and disadvantages of the metallic filament incandescent lamps as compared with the ordinary carbon filament incandescent lamps?

Two similar rooms are lighted by 100 volt, 16 c.p. carbon and "Osram" lamps respectively. The 16 c.p. carbon lamp costs 1s. and consumes 3·5 watts per candle; the 16 c.p. "Osram" lamp costs 2s. 6d. and consumes 1·2 watts per candle. The life of the carbon lamp is 800 hours. The price of electrical energy is 3 pence per B. of T. unit. What must be the life of the "Osram" lamps so that the cost of lighting by the two methods may be the same?

3. A dynamo is supplying current to a building for lighting purposes. Give a diagrammatic sketch showing clearly the type of generator employed and the method of connecting up the various ammeters and voltmeters in the circuit.

Describe, with the aid of sketches, a modern form of shunted ammeter. Why is this type of ammeter so frequently employed?

4. Describe, with the aid of sketches, a storage cell. Write down equations which represent approximately the chemical reactions in the cell during charge and discharge.

What arrangements would you make for charging a battery of 55 cells giving a minimum terminal E.M.F. of 100 volts? What type of dynamo would you use? Show by means of a curve how the terminal voltage of this machine will vary with the time of charge if the charging current is maintained constant.

5. Show clearly, with the aid of diagrams, the difference between parallel (lap) and series (wave) windings for continuous current dynamo armatures. Determine the armature winding steps for an 8 pole dynamo; the armature is parallel wound with approximately 550 conductors.

6. Explain carefully the difference between compound wound and shunt wound continuous current generators. Why are compound wound generators preferred for central station purposes?

How would you determine experimentally (*a*) the magnetisation and (*b*) the external or load characteristics of a compound generator?

7. Deduce an expression for the torque of a continuous current motor in terms of the armature current per conductor and the total field flux. How do the speed and torque characteristics of a shunt motor differ from those of a series motor? Plot carefully, *on the same diagram*, the torque and speed characteristics on an armature current base (*a*) for a series motor, (*b*) for a shunt motor. The motors have same speed, armature current and output at full load.

8. It is found that when the brushes of a shunt motor are moved in one direction from the geometrical neutral position, the speed of the motor rises as the load increases, while if the brushes are moved in the opposite direction the speed falls as the load increases. Give an explanation of the above phenomenon, and show how to determine the direction of motion of the brushes in order that the speed may increase with load.

9. For what classes of work are shunt, series and compound wound continuous current motors suitable respectively?

Give a diagrammatic sketch of the starter of a shunt motor showing the "no volt" and "overload" releases. Give reasons for the articular connections employed in the starter?

10. Deduce a general expression for the power in an inductive lternating current circuit in terms of the current and terminal .M.F. of the circuit.

An alternating E.M.F., $e = 141 \sin 2\pi \times 50 \times t$ is applied at the terminals f a circuit of inductance 0·5 henry, capacity 15 mfds. and resistance 0 ohms. Determine the power factor of the circuit, the current and ie rate of expenditure of energy in the circuit.

CLASS II.—THREE HOURS

(*Only* SEVEN *questions may be attempted.*)

Wherever possible all Alternating Currents, E.M.F.'s, *Fluxes, etc., e to be represented, graphically, by waves or by vectors in the stomary manner.*

1. Define inductance, self inductance and mutual inductance of an etric circuit. How does the inductance of a coil vary with the mber of turns in the coil?

Describe briefly the construction of a choking coil. What must the self inductance of a choking coil which is used in series with a 50 volt arc lamp on a 200 volt circuit? The current is 10 amps., and frequency of the applied E.M.F. is 50.

2. A coil of resistance 3 ohms and inductance 0·014 henry is connected in parallel with a second coil of resistance 5 ohms and inductance 0·021 henry. If the applied E.M.F. is 200 volts and the frequency is 50, find the current in each coil and the total line current. What is the power factor of each of the parallel circuits and of the combination, and the rate of expenditure of energy in the circuit.

Find the capacity of the condenser which, if connected in parallel with the above combination, will make the power factor of the external circuit unity.

3. An alternating current generator whose self-induction is 0·67 henry is delivering current to an unloaded cable 10 miles long. The capacity of the cable is 0·48 mfds. per mile. If the voltage is 6000, find at what frequency resonance can occur.

Under what circumstances can this resonance take place?

4. How would you determine, experimentally, the iron losses in a single phase, core transformer for varying flux densities and constant frequency?

How would you separate the total iron losses into the hysteresis and eddy current components?

What difference would a small air gap in the magnetic circuit make in your results?

5. Describe clearly the stationary alternating current transformer. What is meant by the reactances of the primary and secondary circuits? How may these be kept as small as possible? Show how the various E.M.F.'s, fluxes and currents may be represented, in the customary manner, in a vector diagram if the secondary circuit of the transformer is supplying power, (*a*) to an inductive circuit, (*b*) to an over-excited synchronous motor.

6. Explain clearly what is meant by the "breadth factor" of an alternator armature winding.

Calculate the "breadth factor" for two different types of armature windings with which you are familiar.

Show that the line E.M.F. of a three phaser with star connected armature is not necessarily $\sqrt{3}$ times the phase E.M.F. How would you measure the power in an unbalanced three phase A.C. circuit? Give reasons for your answer.

7. Describe, with the aid of sketches, the effects of armature reaction on the magnetic field in the air gap of a polyphase alternator.

How may the "short circuit" characteristic of a polyphase alternator be deduced from the "open circuit" or "magnetisation" characteristic?

8. How would you parallel two low tension, three phase alternators? What are the essential points to be considered in the paralleling of such machines?

Show, by the aid of diagrams, how the machines will behave in *each* case, after paralleling, if one of these conditions has not been approximately observed.

9. Show how the "circle" diagram for an induction motor may be drawn. A full criticism of the assumptions made in drawing this diagram must be given.

How may the load characteristics of the induction motor be obtained from the "circle" diagram?

10. Describe, fully, the construction and working of the compensated series, single phase commutator motor. Sketch, carefully on a torque base the speed, current, power factor and efficiency characteristics. In what circumstances would this motor be preferred to the ordinary continuous current series motor?

NAVAL ARCHITECTURE

STABILITY AND ROLLING. THREE HOURS.

1. Define metacentric stability. Within what limits of heel and G.M. in ordinary vessels is it a correct measure of stability?

2. Obtain the formula,

$$V \cdot GZ = v_1 gh_1 + v_2 gh_2 + (v_1 - v_2)Oe - BG \sin \theta.$$

3. What is a cross curve of stability? In a vessel of uniform rectangular cross section show that as long as the water plane does not pass the corners of the rectangle then for a given angle of inclination GZ varies inversely as the draft for a fixed position of G.

4. Describe a method of obtaining an isocline. How would you obtain an isovol from a series of isoclines?

5. What is the ellipse of gyration? Show from the expression $BM = \frac{I}{V}$ that there is a maximum and a minimum value for BM in every floating body, and that the directions of inclination corresponding to these maximum and minimum values are at right angles to each other.

How can the direction in which the C.B. begins to move be determined from the ellipse of gyration?

6. Give specimens of curves of stability showing the maximum angle, the righting arm and the range. From a curve of G.Z.'s show how you would construct (*a*) an isovol, (*b*) a metacentric evolute.

7. If a number of forces varying in direction and magnitude act upon a vessel, show that they can all be resolved into three forces at right angles to each other, and three couples, in planes at right angles to each other. If the three planes of reference are the three principal planes of a vessel, what is the motion set up by the three couples in these planes called?

8. Obtain a formula for the period of oscillation of a vessel rolling in smooth water without resistance. Give the formula giving the angel

of inclination in terms of time for rolling unresisted amongst waves. Discuss the case of a vessel which nearly synchronises with the wave.

9. Write down the expression which represents the resistance to rolling in a ship. How can the constants in such an equation be experimentally determined for a given vessel? If the curve of G.Z.'s for a vessel of displacement Δ be a straight line at 30° to the base, within the limits of rolling under consideration, what is the G.M., and what is the work done on resistance in a double roll if the extreme angle of roll is reduced from 20° to 10°?

RESISTANCE AND PROPULSION—Three Hours.

1. Give the formula for the speed of a wave of translation. Explain the phenomena which led to the introduction of the high-speed canal boat.

2. Enunciate the trochoidal wave theory. State the propositions which must be proved in order to establish the possibility of the existence of a system of trochoidal waves. Prove any one of them.

3. State Froude's law of comparison.

Suppose a curve of wave-making resistance to be $r=pv^n$, deduce from this the relation between displacement and resistance for a constant speed.

4. A curve of resistance for a form is $r=pv^3$. Assume that the frictional resistance is $r_f=fv^{1\cdot85}$. Deduce a formula for the E.H.P. of a similar form n-times the dimensions of the first form, "f" being the same for both forms.

5. Explain Froude's system of standardising resistance results, and describe the experiments upon the series of models given in his "1904 paper."

6. Define propulsive efficiency, giving values for three types of steamer. Give quantitatively the items which make up I.H.P. in a vessel propelled by reciprocating engines.

7. Explain the action of the steam in a Parson's turbine. Show that the efficiency of the turbine for a given H.P. increases as the revolutions increase.

8. Define "pitch ratio" and "slip" in a screw propeller. Find the slip ratio of a propeller of ten feet pitch running at 100 r.p.m. in a ship running at a speed of 9 knots.

9. Describe Froude's system of determining the dimensions and area of a propeller for a given H.P. and speed, as given in his "1908 paper."

STRENGTH—Three Hours.

1. Draw carefully the structural midship section of a vessel, having three decks, giving dimensions of the vessel and naming and giving the scantlings of the various parts of the structure.

2. What parts of the above structure are included in the calculation of the moment of inertia for the section? How is this moment

of inertia found when the vessel is subject (*a*) to a hogging, and (*b*) to a sagging bending moment? Give suitable tables in which to arrange the calculation. Find the value of I in the upright condition of a hollow rectangular beam, 20″ wide by 10″ deep, whose sides are ¼ inch steel plating, and whose top and bottom are [illegible] inch steel plating.

3. Find the stress at any point "x, y" in the transverse section of a vessel inclined at an angle θ to the upright, and subject to a bending moment M.

Where is the neutral axis in this condition?

Find the stress in the upright and at 45° upon the above rectangular section (in question 2) when it is subjected to a bending moment of 2400 ft. tons.

4. What is the basis of the trochoidal wave theory? Show how to draw a trochoidal wave profile, taking into account the sub-surfaces of uniform pressure. How does the consideration of these sub-surfaces affect the results of the calculation of the deflection of a vessel, which deflection has been determined by considering the pressure to vary hydrostatically?

5. Explain the action of a series of uniform waves on a ship moving at right angles to their crests. How can such a series cause heaving? How is the longitudinal bending moment curve drawn for a vessel inclined at an angle θ to the upright, and at an angle a to the line of motion of such a series of waves?

6. How would you calculate the stresses in the fore poppet of a vessel, the several members of the poppet being inclined to the vertical? Sketch a suitable arrangement of such a structure.

7. Explain the method of standardising strength calculations, and deduce a scale for (i) weight, (ii) buoyancy, (iii) shearing force curve, and (iv) bending moment curve, given that the scale for length is one inch $\frac{L}{20}$ ft.

Give fully the reasons for choosing $L \quad \frac{L}{20}$ as the dimensions of the standard wave.

8. How can the deflection of a vessel be determined from the bending moment? Prove your statement. Suppose that the moment of inertia curve for a beam is represented by a common parabola and the bending moment curve by another common parabola, draw he curve of I/y stating what its form is.

9. Explain fully the method of finding the bending moment due o pitching.

SHIP CALCULATIONS Three Hours.

1. Prove that the cross section of a ship is a curve of pressure hen the vessel is floating in still water. Find the actual support iven on a ship of uniform triangular cross section, supposing that he pressure varies as the depth.

2. State and prove the rule for finding the area enclosed between two ordinates of a curve when three equally spaced ones are known. Discuss Tchebycheff's method of determining the area of a figure enclosed by a parabola of the n-th order, and find by calculation the position of two ordinates of the curve such that the rule can be applied to determine the area of the figure by their use.

3. Find by integration the volume and the position of the C.G. of a right circular cone of height H and radius of base R. Write down the same quantities for a paraboloid of height 4 feet and radius of base 5 feet.

4. Find the moment of inertia of a triangular lamina having surface density σ:

(*a*) about an axis through the vertex parallel to the base,

(*b*) about an axis parallel to the above, but passing through the C.G.,

(*c*) about the base,

(*d*) about *any* axis through the vertex.

5. Sketch six different types of merchant steamship, naming the several decks and part-decks in each case, as well as the name of the type. Explain the particular advantage of each type and trace the evolution of the modern merchant steamer from the flush one-deck type.

6. What is the principle underlying the method of deriving those scales for the standardisation of the results of ship calculations which you are in the habit of using? What are the advantages of recording your results in this manner? Reproduce on half size (*i.e.* draw in a 5-inch square) the following curves for any vessel with which you are familiar, naming each curve and giving the scale you would use for it on the ordinary 10-inch square, viz.: block-, prismatic-, midship-sect area, and water-plane-area-coefficients; displacement; vertical C.B.; area of midship section; area of water planes; moment to trim ship one inch; and the longitudinal and transverse metacentres. Name the type of vessel you are dealing with and give its dimensions.

7. In a vessel whose C.G. of water-plane is at mid length, show that a small weight added at a distance

$$= \frac{\text{twice the moment to trim ship one inch}}{\text{tons per inch immersion}}$$

before the C.G. of water-plane will not change the draft aft.

A rectangular vessel 100 feet × 20 feet × 10 feet × 5 feet (draft) is floating in salt water. Find at what position a weight of 40 tons can be added so as to allow the draft aft to remain unaltered (*a*) if the vessel remains in salt water, (*b*) if she be towed into fresh after adding the weight.

8. Describe carefully and in order the manner in which you would

draw a launching diagram for a vessel, giving suitable tables in which to arrange the work in order to determine the following, viz.

(*a*) moment of weight about fore poppet.

(*b*) moment of weight about end of ways.

(*c*) moment of buoyancy about fore poppet,

(*d*) moment of buoyancy about end of ways.

(*e*) minimum moment against tipping.

(*f*) weight on fore poppet.

What information would you require at the outset, and how would it be determined?

9. Find the total change of trim forward due to flooding one nth of a vessel's length at a distance x from midships, the vessel being rectangular and of uniform cross section. In a vessel of the same form and dimensions as that mentioned in question 7, find at what position in the length of the vessel a compartment one quarter of the length in extent could be flooded so as to bring the fore end awash.

MARINE ENGINEERING.—Three Hours.

1. What are the chief sources of waste of fuel in a boiler? Explain clearly the meaning of each of the figures and symbols on either side of the three following equations, showing how the formulae are derived, viz.:

$$\text{Calorific value (in B.T.U.'s per lb.)} = 14{,}500\{C + 4{\cdot}28(H - \tfrac{1}{8}O)\}.$$

$$\left.\begin{array}{l}\text{Theoretical evaporative power of 1 lb.}\\ \quad\text{of fuel—expressed in lbs. of water}\end{array}\right\} = 15\{C + 4{\cdot}28(H - \tfrac{1}{8}O)\}.$$

$$\text{No. of lbs. of air required to burn 1 lb. of fuel} = 12C + 36(H - \tfrac{1}{8}O).$$

In the course of your explanation define "calorific value," "B.T.U.," "theoretical evaporative power," and "one pound."

2. Explain in order the steps you would take in the calculation of designing a cylindrical Scotch boiler installation, for a vessel, given the length of voyage, speed and I.H.P. Give the formulae you make use of in each case.

3. State the advantages of a water tube boiler over a cylindrical, and enumerate also the disadvantages of this type. What are the chief points to aim at, in order to make a successful design of water tube boiler. Give with sketches a description of two such boilers; the one suited to ordinary firing only, the other for forcing. Point out the means that have been adopted in each case to attain the points you have enumerated above.

4. Define "specific heat." What is meant by "specific heat at constant volume"? The weight of a cubic foot of air being ·0807 lbs. at 32° F. and 14·7 lbs. per sq. in., determine the ratio between its specific heat at constant pressure, and its specific heat at constant volume.

5. Define (*a*) isothermal expansion, (*b*) adiabatic expansion, (*c*) specific volume, (*d*) relative volume, (*e*) saturation point, (*f*) boiling point, (*g*) wet saturated steam, (*h*) dry saturated steam, (*i*) specific density. Give a sketch of two isothermals for dry saturated steam, and explain clearly how they differ from those for a gas. Sketch also on this diagram the adiabatic curves for the same two temperatures.

6. What are the essential conditions for working a theoretically perfect heat engine. Prove that these are realised if the efficiency of the engine is represented by the fraction $\frac{\tau_1 - \tau_2}{\tau_1}$ where τ_1 and τ_2 are the absolute temperatures of the sources of heat and cold respectively.

7. Find suitable dimensions for the cylinders of a four-cylinder triple expansion engine, choosing a suitable stroke. The engine is one of those intended for a twin screw ship of 12,000 I.H.P. and the boiler pressure is 240 lbs. per sq. in. From this determine a suitable arrangement of cylinders and determine the over-all dimensions of the engine and bedplate.

8. What are the advantages of working steam expansively? Show by a diagram that there must be such advantages, and show also the effect that the condenser has upon the economy of the engine. Sketch a perfect indicator diagram and explain it. Show how it is possible to determine the power of an engine such as that mentioned in question 7, by combining the four separate indicator diagrams from its four cylinders. Show clearly how you would accomplish this combination.

9. Explain how you would proceed to mould a propellor blade, (i) if the pitch had axial variation, (ii) if it had radial variation, and (iii) if the pitch varied both axially and radially.

ELECTRICITY, PURE AND APPLIED—Three Hours.

1. Define magnetic moment and intensity of magnetisation. Prove the relation: $B = H + 4\pi I$.

Describe fully, giving the required formulae, the magnetometric method of determining B for a long thin cylindrical rod.

2. Show that the dimensions of a resistance are the same as those of a velocity; hence define the absolute unit of resistance. Define the ohm, and state its value in terms of the absolute unit.

Give an account of an accurate method of comparing two resistances by means of the wire bridge, giving a diagram of the connections and mentioning the precautions to be taken.

3. Assuming, with the usual notation, that the force on unit magnetic pole due to a current element is $(Cds \sin \alpha)/r^2$, find the force on the current element when placed in a uniform magnetic field. Use your result to find the force between two straight parallel currents; and show that if the currents in two coaxial circular wires of nearly equal radii are equal, the force between them is proportional to the square of the current strength. In which current-measuring instrument is this principle employed?

4. Define mutual inductance, and prove that the induction between two current carrying circuits is mutual. Write down expressions for the E.M.F. in a circuit (*a*) with resistance and self inductance (*b*) with mutual inductance in addition, and find the rate of growth of the current in each case. Hence show that the presence of mutual inductance causes the current to increase more rapidly at make. What is the effect of mutual induction between the different portions of the same current in a solid cylindrical conductor?

5. Find an expression for the value of the current *t* seconds after the E.M.F. has been cut off in a circuit of resistance *R* and inductance *L*. Explain the presence of the spark on breaking the circuit.
What is the general nature of the effect produced by the addition of a condenser to an alternating current circuit?

6. A simple harmonic E.M.F. is applied to a circuit containing resistance and inductance; show, by means of a vector diagram the E.M.F.'s in the circuit at any instant, and find the current strength and the angle of lag. Define the impedance and the reactance of the circuit, and use the relation between these quantities to find the distribution of potential difference in a circuit consisting of a noninductive resistance in series with an inductive coil of negligible resistance. What practical use is made of the second type of coil?

7. A simple harmonic E.M.F. of R.M.S. value 100 volts is applied to a circuit of resistance 10 ohms and inductance 0·05 henry. Find the maximum E.M.F., the maximum current, and the mean power in the circuit, if the periodicity of the current is 80 alternations per second.

METALLURGY—THREE HOURS.

(SIX *questions to be answered.*)

1. How does copper occur in nature? Describe the preparation of pure copper from one of its ores.

2. Give an account of the methods employed for the accurate determination of temperature in metallurgical processes, and for taking cooling curves of alloys.

3. What are the materials most generally used as linings for open hearth steel furnaces? Mention the purpose for which each material is suitable.

4. Give the chemical composition and physical properties of the following: specular iron ore, horn silver, calamine, pyrrhotite, black band ore, pearlite, Roberts Austen's purple alloy, spiegeleisen.

5. What are the composition, microscopic structure and uses of the principal alloys of copper (*a*) with zinc, (*b*) with tin?

6. Enumerate the chemical changes occurring in the blast furnace, mentioning the level at which each reaction predominates.

7. How would you prepare a microscopic section of a specimen of white pig iron? What structure would you expect to find?

8. Describe the method you would adopt in assaying an ore containing much copper sulphide, for gold and silver?

MINING ENGINEERING.

FIRST PAPER—Three Hours.

1. It is proposed to sink a shaft on a site where the first 50 feet is found to consist of running sand containing large quantities of salt water. Describe in full detail the method you would adopt in sinking through this deposit.

2. Define the "manometrical efficiency" and "mechanical efficiency" of a fan, and find the manometrical efficiency of a cased fan 10 feet in diameter running at 250 revolutions per minute if the water gauge reading in the fan drift be 6 inches, the barometric pressure 30 inches, and the temperature of the air 65° F. If the combined efficiency of the fan and driving engine be 60 per cent., find the Indicated Horse Power of the driving engine when the fan is passing 130,000 cubic feet of air per minute.

3. How would you arrange the boreholes for proving a seam of coal by boring from the surface? Three boreholes *A*, *B* and *C* find a seam of coal at 100, 110, and 120 yards respectively from the same level at the surface. *AB* has a bearing N 45° E and is 600 yards long. *AC* has a bearing S 75° E and is also 600 yards long. Find the direction and amount of inclination, and the direction of strike of the seam.

4. Describe fully with sketches any good form of apparatus for the prevention of overwinding.

5. Describe any method of shaft sinking whereby the whole of the operations are conducted from the surface and discuss the merits of the method you adopt.

6. In the return airway of a mine the air was found by analysis to have the following composition: CH_4 1·7 per cent., CO 0·085 per cent., CO_2 9·83 per cent., O 10·215 per cent., N 78·17 per cent. How would you account for the pollution of the air, and what methods would you adopt for the detection of the dangerous constituents?

7. What size and description of winding engines would you adopt to raise 2000 tons of mineral in 16 hours from a depth of 350 fathoms if the engine is balanced by a tail-rope, and the available steam pressure be 120 lbs. per square inch? Also give particulars of the other plant necessary.

8. Sketch and describe the Diamond system of rotary boring for obtaining solid cores. How does the Calyx system differ from it, and under what circumstances would you adopt each of these methods? Show how you would arrive at the cost of a borehole by the Diamond system.

SECOND PAPER—Three Hours.

1. What is Hepplewhite's system of preparing timber for supporting purposes in mines? What are its merits, and in what collieries can it be used to the greatest advantage?

2. Describe two methods of closing the top of an upcast shaft through which air is being drawn by a ventilator at the surface, so as not to interfere to an appreciable extent either with the ventilation or with the operation of winding.

3. What methods have been proposed for detecting small quantities of methane in the atmosphere of coal mines? Which method do you consider the best and why?

4. Explain your views as to the advantages of coal getting by machinery in respect to safety and economy. What conditions are respectively most advantageous for hand getting and getting by coal cutter?

5. What are the chief differences between the nitrate of ammonium and the nitro-glycerine classes of explosives? Give examples of each with their respective compositions, and describe the special precautions which must be taken with each class.

6. Show by means of sketches the construction of the following safety lamps: (*a*) Hepplewhite Gray, (*b*) Mueseler.

7. What horse-power of electric motor would you advise for hauling by endless rope 500 tons per day of 8 hours up an incline 800 yards long with an inclination of 4 inches to the yard? (Tubs or Hutches weigh 5 cwts. and carry 10 cwts. of mineral.)

8. If you had a feeder of water of 10,000 gallons per hour at the bottom of a shaft 200 yards deep to deal with permanently, describe the type and size of pump you would employ.

THIRD PAPER—Three Hours.

1. Describe the various processes through which quartz, containing finely disseminated gold, passes, after it has been delivered from the mines to the dressing works; follow it through each stage until the gold is finally recovered and the barren slime rejected.

N.B.—The quartz is supposed to contain nothing but gold.

2. Describe in a general way the principal geological features of a gold placer, and show:

(1) The method of working such a placer other than by dredging or by the hydraulic process;

(2) The construction and method of working a sluice, giving the details of the conveniences by means of which the gold is arrested and recovered.

3. Describe with full details a modern bucket dredge; explain the manner in which it is used, and the kind of deposits worked; state the cost incurred in some instances per cubic yard dredged.

4. Mention the conditions which would influence you in determining the best system to adopt in working coal.

5. What are the respective advantages and disadvantages of vertical and inclined shafts, in working mineral veins.

6. What are clay band ironstones, how do they occur, and what methods are adopted for working them?

7. What are the principal causes of fires in coal mines, and what precautions would you take against them?

8. What is the disease known as miner's anaemia or ankylostomiasis, which has so severely affected miners in many parts of Europe? How is it caused? What conditions are specially favourable to its propagation, and what precautions should be taken to prevent it or stamp it out?

C.—IN AGRICULTURE.

FIRST EXAMINATION.

Mathematics—See pp. 618—621.
Natural Philosophy—See pp. 621—625.
Chemistry—See p. 630.
Botany—See p. 631.
Zoology—See p. 690.

FINAL EXAMINATION.

AGRICULTURE AND RURAL ECONOMY.

Three Hours.

1. Name the chief milking breeds of cattle kept in Britain. Compare any two of them in regard to (*a*) general characteristics and utility, (*b*) yield and composition of milk, and (*c*) their suitableness for cheese, and for butter-making.

2. What are the chief objects of the Agricultural Holdings Act? Show how you would estimate the residual value of (1) bone meal, (2) nitrate of soda, and (3) superphosphate, applied two years before the expiration of a tenancy, also (4) linseed cake and (5) oats, consumed by cattle in the same year.

3. What are the chief causes of the exhaustion of phosphoric acid on arable and on pastoral farms respectively? State the best means of repairing that exhaustion in both cases.

4. Give a short account of the cultivation of the turnip crop, from the time the previous crop is removed from the land. What kinds

and quantities of artificial manures would you apply where farmyard manure is available and not available respectively? Give approximately the cost of producing the crop, including rent, and manual and horse labour. What are the plant diseases and insect pests from which the turnip crop is liable to suffer?

5. What are the advantages of applying lime to land? In what form or forms would you apply it, and what quantity per acre would you apply to the different classes of soils?

6. Describe how you would keep a breeding flock of Cheviot ewes at different seasons of the year. What breeds of rams are suitable for mating with Cheviot ewes?

AGRICULTURAL CHEMISTRY—THREE HOURS.

(Only six questions to be attempted.)

1. Describe the more important agricultural operations which have as their object the conservation of soil moisture.

2. In what form and from what sources do the higher plants obtain their supplies of Nitrogen? Describe the general nature of the changes which nitrogenous organic matter undergoes in a fertile well aerated soil.

3. What are the principal differences between cereals and leguminous crops generally in respect of (*a*) the sources from which they draw their food; (*b*) the manures best suited to them; (*c*) the chemical composition of the ripe crop; (*d*) the influence which their growth has on the succeeding crop?

4. How are calcium cyanamide and nitrate of lime prepared? What is known of their value as nitrogenous manures? What precautions, if any, have to be observed in their use?

5. Compare the value of the following feeding stuffs; the pease meal was offered at £8 5s. per ton and the dried grains at £4 17s. 6d. per ton:—

	Pease Meal	Dried Grains
Oil	2·54	3·72
Albuminoids . .	22·75	17·87
Soluble Carbohydrates	56·94	43·49

6. What are the more important factors which affect the variation in composition of milk? Discuss specially those which are under our control.

7. Describe the method of calculating the amount of compensation at the end of a lease for the value of the unexhausted manurial residue due to the consumption of food by stock.

GEOLOGY.—See p. 688.

VETERINARY HYGIENE—Two Hours.

1. Give a short account of the responsibilities of an owner under the "Sheep Scab Order" and the "Dipping Order."

2. Describe a model byre, dealing fully with (*a*) ventilation, (*b*) space, (*c*) lighting, (*d*) drainage, and (*e*) temperature.

3. Describe the characteristics of good samples of (*a*) oats, and (*b*) hay. Give in detail the various conditions which detract from their value, and the injurious effects which these, when not in sound condition, may have on horses.

4. Give your opinion on the following case : A farmer having a cow suffering from some disease, kills and bleeds her, and sends the carcase to a public slaughter-house. Does the farmer run any risk of prosecution? Do you know of any regulations already framed for his protection which he might have made use of?

5. Give your opinion on the (1) watering, (2) clipping, and (3) washing of horses.

AGRICULTURAL BOTANY—Three Hours.

1. Give an account of the sensitiveness of the root-tip, naming the various external influences that affect it : point out the biological importance of the reaction in each case.

2. Give a full account of chlorophyll-corpuscles, their origin, structure, function.

3. Give a general account of the weeds of arable land, and explain on a biological basis how it is that they persist.

4. Describe the disease known as "Coral spot" (Nectria cinnabarina), and what means you would use to check it.

5. Describe fully, with drawings, the structure of the leaf of the wheat, or of some other grass, as seen in transverse, longitudinal, and tangential sections.

6. Give an account of the substance taken up from the soil by roots, explaining the physiological bearing of each.

AGRICULTURAL ENTOMOLOGY.

1. Describe the mouth parts of a typical insect. How are they modified in the Hemiptera and the Lepidoptera?

2. Describe the life-histories of : (1) Wire worm (Elater), (2) Crane fly (Tipula), (3) Aphis, (4) Sheep bot (Œstrus ovis), (5) Pea weevil (Sitonus lineatus). At what stage and of what nature is the damage done by each, and how would you deal with them?

3. Give the characters which distinguish the orders (*a*) Coleoptera, (*b*) Hymenoptera, and (*c*) Hemiptera.

4. Give a brief account of any three insects which are advantageous to the agriculturalist.

5. How do insects breathe? What bearing has their mode of respiration on the means used for their destruction?

AGRICULTURAL ENGINEERING—Two Hours.

(*Not more than* SIX *questions are to be attempted.*)

1. Describe, with the aid of sketches, an ordinary swing plough; name the various parts, explain their purposes and state the materials of which they are usually made.

Explain the straight line principle upon which the breasts of ploughs should be constructed.

2. Sketch and describe a mechanism for communicating the motion of the land wheels of a sowing drill to the feed arrangement, and explain how this mechanism is put in and out of gear, and how the rate of feed is varied.

3. A self binding reaper is composed of several distinct machines. State what these are, explain their various purposes, and describe how they are driven.

4. Discuss the analogy between the flow of electricity through a conductor and the flow of water through a pipe.

Explain the meanings of the terms: "Electrical Horse Power" and "Kilowatt Hour," and express the energy represented by the latter in mechanical units.

5. Compare and contrast, as regards cycle of operations, construction and governing, a single cylinder, double acting steam engine with an ordinary gas engine.

6. Investigate a formula for the moment of resistance of a rectangular beam in terms of its dimensions and the maximum unital stress.

The floor of a room 12 feet wide is supported upon timber joists 3″ broad × 9″ deep. If the floor be loaded with 100 lbs. per square foot of surface, at what distance apart, from centre to centre, should the joists be spaced if the maximum unital stress allowed be 800 lbs. per square inch?

7. With respect to the flow of water through pipes and channels, explain the meanings of the terms: "pressure head," "velocity head," "hydraulic mean depth," "virtual slope" and "free level locus."

A clean cast-iron pipe 18″ in diameter and 25,800 feet in length connects two reservoirs. If the free surface of the water in one of the reservoirs be 30 feet above that in the other, what will be the flow, approximately, through the pipe in gallons per hour?

8. With respect to "dry saturated steam" define: "total heat at constant pressure," "latent heat" and "internal energy," and

calculate the numerical values of these for steam having a temperature of 324° F. and a volume per lb. of 4·55 cubic feet.

9. Sketch in section and describe a Lancashire boiler.

Upon what does the steaming capacity of a boiler depend, and why?

D.—IN PUBLIC HEALTH.

FIRST EXAMINATION.

PUBLIC HEALTH LABORATORY WORK.

First Paper.

1. A sample of butter (?) marked *A* is supplied. Make such an analysis as will enable you to give an opinion as to its genuineness or otherwise. Estimate quantitatively the volatile fatty acids in terms of butyric acid. If found not genuine butter, estimate the amount of adulteration. Explain in detail each step in the process of analysis, giving equations as far as possible.

2. Estimate quantitatively the percentage of fat in the milk sample provided, by two methods. Explain the rationale of each process. Which of the two methods used would you adopt as the more accurate, and why? Does the amount of fat found conform to the legal standard, and if not, what is the percentage deficiency?

3. Estimate the percentage of alcohol present in the sample of beer supplied. Examine the sample for acidity, and estimate quantitatively its amount, if present.

Second Paper.—Bacteriology.

1. Two cultures are supplied. Identify the organisms. Detail the procedure necessary in taking a throat swab for bacteriological purposes from a case of suspected diphtheria. Indicate the fallacies involved, and the value of the results obtained.

2. A pure culture of B. Typhosus is supplied, and blood from a patient. Examine for Widal's reaction. Demonstrate result. Give details of the method used. Criticise the value of the reaction, the fallacies which may arise, and how these may be avoided.

3. Stain the morbid material in bottle (A). Describe the organisms found.

4. Make an agar Petri plate from the tap water in the laboratory, demonstrating procedure to the examiners.

5. Identify the organisms under the microscopes.

THIRD PAPER—Two Hours.

(N.B.—FIVE *questions only to be answered, including either No. 6 or No. 7.*)

1. Under what conditions may an excess of chlorides occur in drinking water? To what extent is excess of chlorides an indication of organic impurity?

2. Enumerate all the possible causes of hardness in water. Discuss the effect of temperature in the estimation of hardness. Describe two methods of softening water on the large scale.

3. Discuss the variations in the composition of the milk of cows which may result from special feeding and from diseases of the animal itself.

4. Give the percentage composition of wheat flour. Describe the microscopical characters of the grains of wheat starch, and the effects on the latter in the process of bread making.

5. What are the main preservatives employed in food stuffs? Discuss the effect in each case on the dietetic value of the material thus treated.

6. Discuss fully the theory of immunity. How may immunity be acquired naturally or artificially?

7. Give an account of any recent work on the differentiation of coccal organisms. State how these behave relative to Gram staining.

PRACTICAL SANITATION—Two Hours.

(N.B.—FOUR *questions only to be answered.*)

1. What are the uses of an "intercepting" trap in any drainage system? Discuss the objections which have been urged against their use when connected with soil pipes.

2. Describe generally, and illustrate with a sketch, if necessary, the system of drainage which you would advise for a tenement building of the ordinary type with the usual offices.

3. Describe in detail any system of sewage disposal which you would recommend for an inland community with a distillery among the local industries.

4. What is the most usual cause of dampness in the walls of houses. What method would you recommend for its removal in a small rural cottage situated on a slope?

5. Detail the steps to be taken for testing the efficiency of the pipes and drainage system of a tenement. What process commends itself most to you?

INSPECTION OF, AND REPORT ON, PREMISES.

To proceed to Nos. 3, 7, and 9 Great Dovehill, Gallowgate, to examine and report upon present condition of the premises, and recommend, if necessary, steps for their improvement or otherwise, and to return to the Public Health Laboratory and there write report.

SANITARY LAW—Two Hours.

(N.B.—Four *questions only to be answered.*)

1. What regulations may a Local Authority make under the Public Health Act for the control of offensive trades? Select any one of such trades with which you are acquainted: describe the stages of the process of manufacture associated with the production of nuisance, and indicate what steps you would recommend to be adopted for its prevention.

2. What procedure must be adopted in order to form a Special Drainage District under the Public Health Act?

3. What obligations are laid upon a Local Authority by the Public Health Act to provide hospital accommodation for the treatment of disease?

4. What is an "underground bakehouse," as defined by the Factory and Workshops Act, and under what conditions may an "underground bakehouse" be occupied?

5. Distinguish between a "common lodging-house" and a "house let in lodgings," and indicate any differences in the nature of the byelaws which may be applied to each.

VITAL STATISTICS—Two Hours.

(N.B.—Four *questions only to be answered.*)

1. What is meant by the term "death-rate," "corrected death-rate," "standard death-rate," "comparative mortality figure," and "infantile mortality" respectively? Illustrate your answers by figures as far as possible. Give the death-rates for the age-groups 0-1, 1-5, 15-25, 35-45, and 65-75 in each sex.

2. By what statistical data may the health of communities be gauged? Discuss in detail the value of such an estimation, and show how conclusions derived from such data may be near or far from the truth.

3. Give an outline of the form of a life-table. State the precise value of life-tables.

4. Discuss in detail the conditions required in statistical calculations. What is meant by the "arithmetical mean," "method of

successive means," and the "quadratic mean"? Illustrate the first-named by figures.

5. What main causes determine the movements of population? What influence, if any, may sudden movements of population have on the estimation of intercensal populations? What plan would you adopt to determine the summer population of a popular watering place for statistical purposes?

MEDICINE IN RELATION TO PUBLIC HEALTH

TWO HOURS.

(N.B.—FOUR *questions only to be answered.*)

1. Name some of the diseases whose spread and prevalence are attributed to the agency of insects. Select any two of them, and give in some detail the symptoms and pathology of the disease in each case.

2. Describe fully a system of inspection of meat which you would deem satisfactory for this country generally. State what diseases or ill effects may be produced by eating diseased or decomposing meat.

Describe the intention of the recent Foreign Meat Order.

3. Give in outline a practical working scheme for the supervision and treatment of pulmonary phthisis in a populous place in which it is proposed to adopt compulsory notification of that disease.

4. How is plague propagated from country to country? What forms may it present in a series of persons attacked? What preventive measures should be adopted to prevent its spread (1) in a populous place, and (2) from country to country.

5. Discuss the value of isolation hospital treatment in (*a*) measles, (*b*) whooping-cough, (*c*) scarlet fever, and (*d*) smallpox. What superficial space and cubic space per child would you deem sufficient in a hospital?

IV.—DIPLOMA IN EDUCATION.

GENERAL PAPER—THREE HOURS.

(*Only* SIX *questions to be answered.*)

1. What is your opinion with regard to the complaint that the curriculum of the elementary school is overcrowded? Discuss the methods that have been suggested for dealing with the difficulty.

2. What are the advantages of a seasonal course of Nature Study continued throughout the year?

What phases of plant *or* animal life would you call attention to in a Nature Study excursion during the present month? (For the sake of definiteness, imagine the excursion to be to some place with the natural phenomena of which you are acquainted.)

3. What are the chief objects to be served by the School Garden? Show its relation to the rest of the school work.

4. Work out a sum in subtraction as you would with a class, using the method you are in the habit of using for your own purposes. Then give any other method with which you are acquainted and explain why you prefer your own.

5. What place should Grammar have in the teaching of Elementary English?

Indicate (*a*) the grammatical terms, and (*b*) the kind of parsing you would teach to pupils in the highest classes of the Junior and Senior Divisions.

6. At what stage in the teaching of Geography would you introduce the idea that the earth is a sphere?

Write brief teaching notes of a lesson on the Globe for the Qualifying Class.

7. Show, by reference to truth-telling, the method or methods of moral instruction you think most suitable (*a*) for Infants, and (*b*) for Supplementary scholars.

8. What conditions must be satisfied if the writing lesson is to be hygienically satisfactory? Refer specially to the desk, the posture of the scholar, the slope of the writing, and the lighting of the room.

9. Analyse your own method of committing a poem to memory. Have you any reason to think that a child's method is different in any way?

Apply the results of your analysis to the discussion of the best method of teaching a class to commit a poem to memory.

TEACHING IN SECONDARY SCHOOLS.

ENGLISH AND HISTORY—Three Hours.

(*Only* FIVE *questions are to be answered, one of which must be Question* 1. *Not less than one hour should be spent at Question* 1.)

1. Indicate the main lines to be followed in the intensive study of the following passage with a class of pupils aged 15 or 16:

Is this a dagger which I see before me,
The handle toward my hand? Come, let me clutch thee.
I have thee not, and yet I see thee still.
Art thou not, fatal vision, sensible
To feeling as to sight, or art thou but
A dagger of the mind, a false creation,
Proceeding from the heat-oppressed brain?
I see thee yet, in form as palpable
As this which now I draw.

Thou marshall'st me the way that I was going;
And such an instrument I was to use.
Mine eyes are made the fools o' the other senses,
Or else worth all the rest : I see thee still,
And on thy blade and dudgeon gouts of blood,
Which was not so before. There's no such thing :
It is the bloody business which informs
Thus to mine eyes.

Macbeth's Soliloquy before the murder of Duncan.

2. Discuss the relative merits of (*a*) paraphrasing, (*b*) reproduction of narrative, (*c*) summarising of connected argument, (*d*) note making in science, history, etc., and (*e*) essay writing, as means of teaching composition in the secondary school.

3. What consonants and vowels are most commonly mispronounced in the speech of your district? What means would you adopt to correct such mistakes of pronunciation in a First Year Class?

4. "What makes essay writing so difficult for a boy of 15 is the meagreness of his vocabulary." Discuss this statement. Assuming its truth, what means would you suggest for extending the range of effective vocabulary?

5. What place, if any, should the Correction of Sentences have in the teaching of English?

6. Show in some detail the method you would adopt in studying a play of Shakespere with a Third Year Class.

Which of Shakespere's plays do you consider most suitable for pupils at this stage? Justify your selection by a brief reference to *one* of the plays you name.

7. "The main study of history has not had its due effect on the pupil till he realises how forces that are living and active in the civilisation of to-day—in its politics, its social life, its literature, its art, nay its religion,—trace back their descent to ideas germinating and fructifying in the civilisations of twenty and twenty-five centuries ago."

Show the bearing of this principle on the selection of historical material for the secondary school ; and outline a course of study in history for pupils from 12 to 18 in accordance with it.

8. What are the merits and the demerits of the Stewart period as a subject of School history? What difference would you make in the treatment of it with pupils of 12 and 16 respectively?

FRENCH AND GERMAN—Three Hours.

(*Only* FIVE *questions are to be answered, one of which must be Question* 1. *Not less than one hour should be spent at Question* 1.)

1. Write in French (preferably in dialogue form) notes of a lesson for a Lower Grade class on the following passage. Assume that the lesson has been prepared at home and that the teacher has to test

preparation, to explain difficulties and to call attention to idioms, without the use of English on the part of either teacher or pupil :

Mon extrême jeunesse (je n'avais alors que vingt-sept ans), quand je pris le commandement de l'armée d'Italie, me força de montrer la plus grande réserve de manières et la plus grande sévérité de mœurs. Cela était indispensable pour me mettre à même de maintenir mon autorité sur des hommes tellement mes supérieurs par l'âge et par l'expérience. Je suivis une ligne de conduite au plus haut degré irréprochable et exemplaire. Je fus un philosophe et un sage. Je ne pouvais retenir ma suprématie qu'en me montrant meilleur qu'aucun autre homme de l'armée. (*Napoléon I.*)

2. Write out the first sentence of the passage in Question 1 in any phonetic script with which you are acquainted.

Select six words in the passage which might cause difficulty in pronunciation, and show what you would do to secure a right pronunciation.

3. It is sometimes said that most children forget the greater part of the French or German they have learned after they leave school and that therefore the time spent on these languages in school is wasted. Discuss this in all its bearings.

4. Examine the statement that "there is no place for grammatical instruction in the New Method." Indicate the kind of grammatical teaching you think appropriate at the various stages of the school course.

5. Name a few of the books you consider most suitable for a first German reader. At what stage should reading be begun? How should the first reader be used?

6. Compare the knowledge of French acquired by two Scotsmen, one of whom has learned the language by residence among educated people in France, the other of whom has always lived in Scotland but has been taught the language by the best school methods.

7. Give a detailed account of a lesson in oral composition in French, based on an Object or on a set of Pictures. Illustrate if possible by reference to some lesson you have given, or seen given.

8. Explain carefully how you would teach a class going in for the Lower Leaving Certificate to reproduce in French or German a short story read to them in English.

MATHEMATICS—Three Hours.

(*Only* SIX *questions are to be answered, one of which must be Question* 1.)

1. Write notes of a lesson for a class of beginners on Simple Equations *or* the Equality of Angles at the base of an Isosceles Triangle.

2. What is the New Geometry? Is it true that it does not teach children to 'think'?

3. At what stage in geometrical teaching should Deductions be introduced?

Suppose you wished a class to deduce the proposition that the diagonals of a parallelogram bisect each other, (*a*) what fundamental ideas would you desire the class to have, and (*b*) by what steps would you lead them to make the deduction for themselves?

4. In a recent Circular of the English Board of Education on the Teaching of Geometry in Secondary Schools, it is suggested that the content of Euclid, Books I. and III., should be mastered in one year. Do you think this desirable? Assuming it to be desirable, how should it be done?

5. Show how the solution of Simultaneous Equations of the first degree may be graphically illustrated. Explain as to a class the terms "simultaneous" and "indeterminate" as applied to equations, by means of the graphical method of solution.

6. "Subjects that depend on the theory of limits and convergency should be excluded from school algebra." Discuss this statement and show its practical bearings.

7. Indicate with precision the idea of the trigonometrical function you would seek to give a class beginning the study of Trigonometry, and the method you would follow in doing so.

8. Describe some simple apparatus by means of which pupils studying elementary Trigonometry can exercise themselves in the measurement of heights and distances, and explain the method of work.

9. The ordinary pupil thinks of Algebra and Geometry as two separate subjects. What can the teacher do to show their relationship?

SCIENCE—Three Hours.

(*Only six questions to be answered.*)

1. What is the educational worth of a course of class-room lectures on science illustrated by experiments which the pupils subsequently perform for themselves?

2. How would you teach a First Year Class to use a metre stick? What degree of exactness would you expect in their measurements?

3. What are the objections to making the analysis of salts a part of the course in Chemistry usually taught in schools?

4. Describe an apparatus suitable for school use to illustrate the rate of diffusion of gases *or* to measure the latent heat of the vaporisation of steam. Indicate briefly the instructions you would give a class before beginning the experiment.

5. What is the object of making science pupils keep a Note-book recording their work? Discuss the wisdom of the suggestion that

rough notes should first be made, to be expanded afterwards into an exact record that could be used as a text-book.

6. Discuss and illustrate the view that the history of a science often indicates the best method of developing the subject in teaching.

7. Examine the view that science for girls should deal largely with facts relating to domestic life. Illustrate your remarks by reference to Chemistry *or* Heat.

8. What is the general relation of Geography to the science course as a whole? Indicate the practical applications of your view.

9. In a class experiment for the determination of the Relative Density of Lead, the following results were handed in by the pupils: 9·4, 9·4, 10·9, 11·1, 11·2, 11·2, 11·2, 11·2, 11·3, 11·4, 11·4, 11·4, 11·5, 11·5, 11·5, 11·5, 11·7, 12·2. What steps must the teacher now take to direct the class to an *average* result?

V.—FOR DEGREES IN MEDICINE AND SURGERY.

I. PRELIMINARY EXAMINATION.

ENGLISH—THREE HOURS.

(EIGHT, *and not more than* EIGHT, *questions are to be answered. The* EIGHT *shall include Nos.* 1 *and* 2, *either* 3 *or* 4, *but not both, and either* 5 *or* 6.

N.B.—*Candidates must write on their books the number of the table at which they sit.*)

1. Write an essay, two or three pages in length, on *one* of the following subjects:

(*a*) Music.

(*b*) Earthquakes, their causes and phenomena.

(*c*) The possibility of an invasion of Britain.

2. Paraphrase these passages:

(*a*) There is one habit worse than that of punning. It is the gradual substitution of cant or flash terms for words which truly characterise their objects. I have known several very genteel idiots whose whole vocabulary had deliquesced into some half dozen expressions. All things fell into two great categories—*fast* or *slow*. Man's chief end was to be a *brick*. Nine-tenths of human existence was summed up in the single word, *bore*. These expressions come to be the algebraic symbols of minds which have grown too weak or indolent to discriminate. They are the blank cheques of intellectual bankruptcy. You may fill them up with what idea you like—it makes no difference, for there are no funds in the treasury upon which they are drawn.

(*b*) [On the death of the Duke of Wellington, the hero of Waterloo.]

> Who never sold the truth to serve the hour,
> Nor paltered with Eternal God for power;
> Who let the turbid streams of rumour flow
> Thro' either babbling world of high and low;
> Whose life was work, whose language rife
> With rugged maxims hewn from life

3. Write a short historical account of *two* of the following:

(*a*) The Roman Walls across Britain.
(*b*) The Mission of Augustine and its first results.
(*c*) The rise of Wessex to overlordship.
(*d*) King Macbeth and his reign.
(*e*) How William established himself in England after the Conquest.
(*f*) The loss of Normandy and its results.
(*g*) The Maid of Norway and the troubles consequent on her death.
(*h*) The Lollards.
(*i*) The claims of Henry VII. to the Throne of England.
(*j*) The Scottish Martyrs, 1528-1560.
(*k*) The great Seamen of Queen Elizabeth's reign.
(*l*) How the Restoration came about.
(*m*) The opposition to William III. in Scotland.
(*n*) The establishment of the Empire in India.
(*o*) British affairs and personages in 1800-1.
(*p*) The Agitation for Free Trade.

4. Write short paragraphs on *four* of the following, giving dates:—

Edward the Confessor, David I., the Constitutions of Clarendon, Character of Edward II., John of Gaunt, Agincourt, William Caxton, Wolsey, Mary Queen of Scots before 1561, the Hampton Court Conference, the Grand Remonstrance, Malplaquet, Prince Charles Edward after Culloden, the Industrial Revolution of George III.'s reign, The Hundred Days, Catholic Emancipation.

5. Draw an outline map of England and Wales south of Lancashire and Yorkshire. Mark eight towns having over one hundred thousand inhabitants, and give a reason for the large population in each case.

6. Draw an outline map of the continent of South America, and indicate by name all the coast states. Name and state the situation of the chief British American possessions south of the United States.

7. Re-write the following passages correctly and describe the principal error in each:

(*a*) Never over-scrupulous, he was at the same time well aware that honesty would be the best policy for him here, detection or no detection and dealing with the unsuspecting or the most suspicious.

(*b*) He reckoned, he said, the whole facts of the crime had not yet transpired, and they ought to be wary fixing the blame without proof, with so many people in it and all of them possibles.

(*c*) Thus were nipped in the bud a youth of brightest promise and a scholar of brilliant parts, for without him the world is poorer.

8. Write out a general analysis of the following passage, and parse fully the words in *italics*:

We talked of the king's *coming* to see Goldsmith's new play. "I wish he *would*," said Goldsmith, adding, *however*, with affected indifference, "Not that it would *do* me the least good." "*Well* then, sir," said Johnson, "*let* us say it would do him good. No, sir, this affectation will not pass; in such a state as *ours*, *who* would not wish to please the chief magistrate?"

9. Explain and also exemplify by a sentence or otherwise *six* of the following: the instrumental "the," adjective suffixes, strong verbs, the split infinitive, distributive pronouns, frequentative verbs, parts of speech, pronominal adverbs, the indefinite pronoun "who," indirect or reported questions, metonymy, sequence of tenses.

10. Show by analysis into their simplest components how *six* of the following words or expressions come to have their present meaning: as it were, behalf, by myself, courageous, euphemism, heretofore, hundred, intermediate, preliminary, psychology, sensitiveness, uttermost.

11. What is the original setting and reference of any *three* of the following:

(*a*) He loved chivalrye
Trouthe and honour, fredom and curteisye.

(*b*) But Cristes lore, and his apostles twelve
He taughte, but first he folwed it himselve.

(*c*) There is a tide in the affairs of men
Which, taken at the flood, leads on to fortune.

(*d*) The poet's eye in a fine frenzy rolling
Doth glance from heaven to earth, from earth to heaven.

(*e*) [They] were lovely and pleasant in their lives, and in their death they were not divided.

(*f*) Thy money perish with thee.

(*g*) The mind is its own place, and in itself
Can make a heaven of hell, a hell of heaven.

(*h*) From morn
To noon he fell, from noon to dewy eve—
A summer's day.

(*i*) Man seems the only growth that dwindles here.

(*j*) Where village statesmen talked with looks profound.

(*k*) When pain and anguish wring the brow,
A ministering angel thou.

(*l*) Ye may be aye sticking in a tree; it will be growing, Jock, when ye're sleeping.

12. Write a short paragraph on each of *four* of the following: an Electoral College, Journalese, Dame Partington, the Olympic Games, Old Age Pensions, the Stock Exchange, the Triple Alliance of to-day, a round robin, the Kailyard School.

LATIN—See p. 570.
GREEK—See p. 573.
MATHEMATICS—See p. 577.

FRENCH—THREE HOURS.

I.

Translate into English:

(*a*) A de longs intervalles, apres le cri avertisseur du gondolier, une gondole emergeait de l'ombre, glissait sur l'eau brune qu'elle rayait d'un pâle sillage argente, puis disparaissait sous un pont voisin. Ce coin endormi avait une si singuliere analogie avec un des vieux quartiers de ma petite ville, que peu a peu une illusion m'envahissait. La sonnerie berceuse d'une cloche d'eglise aidait encore à cette vision retrospective. Il me semblait que j'avais rajeuni de vingt-cinq ans et, qu'accoudé a ma croisee, je voyais fuir l'eau de notre vieux canal de Villotte, entre les maisons de la rue des Juifs, tandis qu'une messe matinale tintait a l'eglise des Augustins, voisine du logis paternel.

(*b*) 'Tu vas partir, petit, tu vas être libre . . . Comprends-tu, dis? peux-tu comprendre?'—Valentin ouvrit la main. L'oiseau prit son essor, fila d'abord tout droit, surpris ou enivre de sentir du vent sous ses ailes: puis il revint en zigzaguant à gauche, à droite, en avant, en arrière, avec de petits cris effares, comme s'il ne reconnaissait plus les routes de l'espace. Enfin, il s'abattit sur un acacia. Aussitôt d'aigres piailleries eclatèrent: une famille de moineaux surgit en fureur pour donner la chasse à l'intrus, qui s'enfuit comme un malfaiteur.—'L'arbre etait pourtant assez grand pour les abriter tous, songea Valentin. Quel mal leur faisait il, à ces bourgeois?'

II.

Translate into French:

As our friend did not appear among us at his usual hour next morning, we knocked gently at his door. No answer being given, it was softly opened; and then, to our surprise, we saw him seated before the ashes of his fire, with a little table I was accustomed to set at his elbow when I left him for the night at a short distance from him, as though he had pushed it away with the idea of rising and retiring to his bed. His stick and footstool lay at his feet as usual, and he was dressed in his chamber-gown, which he had put on before I left him. He was reclining in his chair, in his accustomed posture, with his face towards the fire, and seemed absorbed in meditation—indeed, at first, we almost hoped he was. Going up to him, we found him dead.

III.

(*a*) Translate into French :

Is there anything to see? Nobody has seen anything. Anything will do. Nothing has come. Neither of them was there.

(*b*) Form short sentences in French, with English translation, to show the difference between : *Oui* and *si ; vers* and *envers ; quoique* and *quoi que ; aussitôt* and *aussi tôt ; n'est-ce pas?* and *n'est-il pas?*

(*c*) Translate into idiomatic French :

(1) You take everything amiss.
(2) Look out ! There is the train coming !
(3) What has become of your sister ?
(4) Why have you a grudge against her ?
(5) When did they get up this morning ?
(6) They both awoke at a quarter to eight.
(7) We have had to complain of it.
(8) Silence means consent.
(9) A bird in the hand is worth two in the bush.
(10) Good luck ! Do your best !

GERMAN—Three Hours.

(*Candidates may use either English or German Script.*)

I.

1. Translate into German :

(*a*) At last he came to a gloomy glen where trees and shrubs grew so thickly that no sunlight could get in. Sitting there in the darkness he found a rough and ugly man. His face was dark with the smoke, and his eyes were red. Great heaps of gold lay about him on every side. When he saw Guyon, he darted in a great fright at his money, and began to try and pour it into a hole and hide it, lest Guyon should steal it from him. But Guyon ran quickly after him and caught him by the arm. 'Who are you,' he called, 'who hide your money in this lonely place, instead of using it rightly or giving it away?'

(*b*) (1) If the boat had been in deep water the boy would have been drowned.
(2) How proud the children were of their dog !
(3) We stayed there all night as we could not get home.
(4) He is never so happy as when he is busy.
(5) In the month of May it is pretty to watch the little white lambs.

2. Translate into English:

(*a*) Alle Kinder kannten ihn, den alten Hirten, der früh mit der Herde auf die Wieſe zog, dort den Tag verträumte, und des Abends auf ſeinen Stock geſtützt wieder heim kam.

Sie alle fürchteten ſich ein bischen vor ihm. Aber er ſah auch zum Erſchrecken aus, mit ſeinem ſtruppigen Haar und Bart, den buſchigen Augenbrauen, welche die waſſerblauen Augen beſchatteten. Seine Haltung war ſchon lange gebückt, und er heftete im Gehen ſeine Augen auf den Boden, als ob er etwas ſuche.

Und die Leute im Dorfe, die an ihm vorbei eilten, hatten nur wenige Worte für ihn. Spöttiſch riefen ſie ihm zu: „Nicht wahr, Hirt, heut' findeſt du deinen Schatz!" oder auch nur das eine Wort: „Suchpeterle!" Dies brachte dann den Alten in großen Zorn, und er ſchlug mit dem Knotenſtock wild um ſich.

(*b*) Habt ihr ſchon eine alte Stadt geſehen? Es gibt ihrer noch, die ſich ihr altes Ausſehen herübergerettet haben in die neue Zeit, daß man in ihren Gaſſen meint, man lebe vier oder fünf Jahrhunderte früher, in den Tagen des Kaiſers Sigismund oder Maximilian oder wie die alten Herren ſonſt geheißen haben, die vor alters das Zepter des deutſchen Reiches in den Händen gehalten. Da ſtehen noch die engen Straßen mit den maleriſchen Häuſern, bei denen ein Stockwerk immer über das andere vorragt; kleine, alte Fenſter blinzeln halbblind mit runden, in Blei gefaßten Scheiben.

II. Grammar.

1. Give the 3rd person present indicative of the verbs underlined in passage 2 (*a*).

2. Give the nominative singular of: den alten Hirten; ſeinem ſtruppigen Haar; die waſſerblauen Augen; großen Zorn; kleine, alte Fenſter.

3. Give, with the definite article, five names of metals in German.

4. Translate into German: In the German Empire there are many uaint old towns with narrow streets and tall houses.

5. Translate into German: Wait a little bit, and tell me why you re afraid of me; I don't look so very terrible!

SPANISH—Three Hours.

I. Translate into Spanish :

Part of the summer of 1783 was spent by Washington in a tour through the northern states ; and it was during this tour that he struck out a plan of great importance, which has since been carried into effect—a water communication between the Hudson and the great lakes. Returning from this tour, he attended the Congress then sitting at Princetown, where he was received with the highest honours. On the 18th of October the army was disbanded by Congress ; on the 2nd of November Washington issued his farewell address to it ; on the 4th of December he dined with his officers at New York, now evacuated by the British troops ; and on the 23rd of the same month he resigned his commission into the hands of Congress. "Having now," he said, in the course of his address, "finished the work assigned me, I retire from the great theatre of action ; and, bidding an affectionate farewell to this august body, under whose orders I have so long acted, I here offer my commission, and take my leave of all the employments of public life."

II. Translate into English :

Al Cefiro
Dulce vecino de verde selva,
Huesped eterno del Abril florido,
Vital aliento de la madre Venus
    Cefiro blando.
Si de mis ansias el amor supiste
Tu que las quejas de mi voz llevaste,
Oye, no temas, y á mi ninfa dile
    Dile que muero.
Filis un tiempo mi dolor sabia,
Filis un tiempo mi dolor lloraba,
Quísome un tiempo ; mas agora temo
    Temo sus iras.
Así los Dioses con amor paterno,
Así los cielos con amor benigno
Nieguen al tiempo que feliz volares
    Nieve á la tierra.
Jamas el peso de la nube parda
Cuando amanece en la elevada cumbre
Toque tus hombros, ni su mal granizo
    Hierra tus alas.

III. Grammar :

(*a*) Translate the following idiomatic expressions :

Acabo de oir eso.
Me alegro de saberlo.
Caber de piés.
Caer en gracia.
Estar á pique de.

(*b*) Write preterite, indicative, and present subjunctive of the verbs—oir, saber, decir, hacer.

(*c*) State the difference between—acabar and concluir; extrangero and forastero; romper and quebrar.

II. PROFESSIONAL EXAMINATIONS.

I. FIRST PROFESSIONAL EXAMINATION.

BOTANY.

(*For the First Professional Examination only* FOUR *questions to be attempted. Candidates for First B.Sc. must attempt to answer* ALL *the questions.*)

1. Give some account of the structure and behaviour of Cambium. How is the cambium ring formed in a Dicotyledonous stem?

2. What do you understand by root pressure? How can you demonstrate its existence?

3. Give an account of the distribution of chlorophyll in the cells of the higher plants. Under what conditions is the chlorophyll formed?

4. Describe the structure of a typical stamen of an Angiosperm. Describe the position and number of the stamens in the flowers of the Liliaceae Ranunculaceae and Compositae.

5. Give a full account of the structure, life history, and conditions of life of *Mucor*.

ZOOLOGY.

FOR MEDICINE—Two Hours; FOR ARTS AND SCIENCE—
Three Hours.

(*Candidates are reminded to bring their dissecting instruments to the Oral Examinations.*

Candidates in MEDICINE *are expected to attempt* FOUR (*not more*) *questions in* SECTION A. *Candidates in* SCIENCE *and in* ARTS *are expected to attempt* FOUR *questions in* SECTION A *and* TWO *in* SECTION B.

Candidates should illustrate their answers by diagrammatic ketches wherever possible.)

A.

1. Point out any peculiarities in the life histories of (*a*) Mosuitoes, (*b*) Tsetse Flies, and (*c*) Ticks, which are of special importnce in connection with their *rôle* as carriers of disease.

2. Write a short account of the structure and life history of *Volvox*, and point out in what respects *Volvox* resembles a Metazoan.

3. What do you understand by the term "allantois"? In what groups does it occur? How is it developed, and what is its function?

4. What is meant by a "nerve centre"? Describe any features of general interest in the nervous system of (*a*) Coelenterates, (*b*) Annelids, and (*c*) Amphioxus.

5. What is meant by "yolk"? Describe the segmentation of a yolkless ovum as far as the blastula stage. What departures from this mode of segmentation are to be noticed if the ovum contains (*a*) a moderate quantity of yolk, and (*b*) a very considerable amount? Give examples of yolkless, moderately yolked, and heavily yolked ovà.

6. What is blood? Give an account of the part played by the blood in (*a*) nutrition of the tissues, and (*b*) excretion. Describe the microscopical appearance of the blood of the Frog and Earthworm.

B.

7. Give an account of the structural and functional arrangements characteristic of the respiratory organs of Birds.

8. Describe the structure of a typical Polyzoan individual, and point out any peculiarities in the methods of excretion occurring in this group. What is meant by the terms "ectoproctous" and "endoproctous"?

9. Write a comparative account of the "conus arteriosus" in the various subdivisions of the Vertebrata.

10. Give an account of the Mendelian hypothesis of inheritance. Explain how on this hypothesis it is possible, given cross-bred individuals of both sexes, to "extract" pure forms similar to the two parental forms of the cross-breds.

PHYSICS—TWO HOURS.

(FOUR, *and not more than* FOUR, *questions to be attempted.*)

1. Explain the meanings of the terms *velocity*, *acceleration*, *force*, *energy*.

A horizontal force of 4 lbs. weight is applied to a body of mass 10 lbs. resting on a rough horizontal plane. How far will the body move from rest in 3 seconds if the coefficient of friction is $\frac{1}{5}$?

2. Define a horizontal surface. Prove that the surface of separation between two heavy liquids is horizontal.

Water and oil are put into the limbs of a U tube, a little mercury being in the bend. The free surfaces of the water and oil are on the same level, the levels of the mercury surfaces differ by $\frac{1}{10}$ inch. The vertical height of the water column is 15 inches. Find the density of the oil, the specific gravity of mercury being 13·6.

3. Define (1) *thermal capacity of a body*, (2) *specific heat of a substance*.

A calorimeter contains 200 grammes of water at 30° C. A piece of dry ice at 0° C., weighing 21 grammes, is dropped into the calorimeter, and after the ice has completely melted the temperature of the calorimeter and contents is found to be 20° C. Find the latent heat of water. (The water-equivalent of the calorimeter may be taken as 10 grammes.)

4. Explain the terms *frequency*, *wave-length*, *period* as applied to a musical note. Give an example of the reflection of sound.

A siren whose disk contains 10 holes is sounded opposite the open end of a tube one foot long, the other end of the tube being closed. At what speed must the disk be rotated in order that the tube may resound to the note emitted by the siren? [Velocity of sound in air = 1120 feet per second.]

5. Describe shortly the structure of the human eye. What are the defects known as shortsightedness and longsightedness?

Describe, with the aid of a diagram, the action of the ophthalmoscope.

6. Define an *ampere*, a *volt*, an *ohm*.

A battery of E.M.F. 6 volts and internal resistance 2 ohms is connected to three wires of resistances 2, 4 and 6 ohms respectively, the first two of which are connected in parallel and the third in series with this double wire. Find the current in each of the three wires and compare the quantities of heat developed in them in any interval of time.

CHEMISTRY—THREE HOURS.

1. Describe fully with equations the action of hydrochloric acid on (*a*) sodium bicarbonate, (*b*) barium peroxide, (*c*) sodium thiosulphate.

2. Explain the chemical actions which take place when the following substances are exposed to the atmosphere: (*a*) phosphorus, (*b*) quick lime, (*c*) sulphuretted hydrogen solution, (*d*) iron.

3. Given some metallic mercury describe exactly how you would prepare from it specimens of the oxides and the sulphides of the metal. Give the chief properties of these compounds.

4. Explain what is meant by the term "allotropy." Name all the substances you know which exhibit this property.

5. How would you prepare dry ammonia gas? What is the action of heat upon the following ammonium salts: (*a*) ammonium nitrate, (*b*) ammonium chloride, (*c*) ammonium carbamate.

6. Starting with potassium cyanide, how may the following compounds be prepared: (*a*) dilute hydrocyanic acid, (*b*) carbon monoxide, (*c*) potassium isocyanate, (*d*) urea.

II.—SECOND PROFESSIONAL EXAMINATION.

ANATOMY—Two Hours.

1. Describe the gall-bladder and the cystic duct, their position and relations, their nervous and vascular supply and the characters of the mucous membrane.

2. Describe the relations of the parotid gland to surrounding parts and to the vessels and nerves connected with it.

3. Describe the semitendinosus, semimembranosus, and biceps femoris muscles, and the actions and uses of each.

4. Describe how the parts of the labyrinth lie in relation to the middle ear. Also name the parts of the membranous labyrinth. State how they are connected one with another, and mention generally how they were developed.

PHYSIOLOGY—Two Hours.

(*All the questions are to be answered.*)

1. What are the special uses of protein foods in the dietary? Describe carefully their digestion and absorption.

2. Describe the sounds heard during the beat of the mammalian heart. Explain their causes and define the period of the cardiac cycle at which each is heard.

3. Describe the chief conducting tracts of the Spinal Cord as regards (*a*) `origin, (*b*) termination, (*c*) course, (*d*) position, and indicate how our knowledge upon these points has been attained.

4. Give an account of the ways in which the rate and depth of the respirations are regulated, stating the evidence upon which your conclusions are based.

(*Illustrate your answers by diagrams.*)

MATERIA MEDICA AND THERAPEUTICS.

Two Hours.

1. *Quinine* and *Arsenic* are both largely prescribed for their effects on general metabolism. State how this effect is brought about by each, and in what diseased conditions it is therapeutically useful.

2. Enumerate the chief remedies used to allay cough, and explain their modes of action.

3. Give a short account of the *Vaccine* treatment of disease.

4. State the various conditions in which you would use *Jalap*, *Croton Oil*, *Cascara Sagrada*, and *Rhubarb*, as purgatives, with the dose and method of administration in each case.

5. What uses are made therapeutically of the *Lead* preparations.

III.—THIRD PROFESSIONAL EXAMINATION.

PATHOLOGY—Two Hours.

(*Not more than* FOUR *questions to be answered.*)

1. Describe the structure and mode of formation of the false membrane in diphtheria, and discuss its relationship to the symptoms of the disease.

2. Give an account of the naked-eye and microscopic appearances of the lungs in fibroid phthisis, and state what effects may be produced by this condition.

3 Give an account of gall stones as regards composition, conditions of occurrence, and effects. Discuss their possible relationship to the occurrence of carcinoma.

4. Describe the microscopic and cultural characters of the tetanus bacillus, and explain how it produces its effects What methods would you employ to cultivate it from a wound in which it was present?

5. Write an account of phagocytosis, stating the varieties of cells concerned, and discuss its significance in relation to inflammation.

MEDICAL JURISPRUDENCE—Two Hours.

(N.B.—FOUR *Questions only to be answered, of which No. 5 must be one.*)

1. The clothed body of a female suicide is found lying in a plantation where it has been exposed since death two months before. Discuss the question of identity.

2. A prisoner is charged with criminally neglecting and starving a boy eight years old. Report fully your reasoned examination of the boy.

3. Describe in detail the means you would adopt to ascertain whether certain reddish-brown stains on a coat were due to blood or to some other cause; and mention the features which distinguish the blood of a mammal from that of other animals.

4. Give a summary of the rules to be observed by a medical witness when giving evidence in a court of justice; and explain the terms "examination-in chief," "cross examination," and "re examination."

5 For what common drugs may Oxalic acid be mistaken? By what tests may this substance be identified? Give the symptoms and treatment of poisoning by Potassium binoxalate.

PUBLIC HEALTH—Two Hours.

(N.B.—Four *questions only to be answered.*)

1. What forms of particulate matter are met with in the air of (*a*) the open country, (*b*) an industrial town, and (*c*) various workshops? What are the effects of these upon health? How may this particulate matter be removed in the case of workshops?

2. What is meant by the term "hardness" as applied to water? In what form or forms does it exist? What are its causes? How may water be softened on a large scale?

3. What are the requirements of an efficient house-drain? How is its ventilation secured? Wherein does it differ from a sewer?

4. Name various methods employed for the purification of sewage. Describe in some detail the *chemical* or *precipitation* method. Explain the *rationale* of the method.

5. What is disinfection by steam? How is it applied? For what kinds of articles in a dwelling-house may it be used? What is its efficiency compared with dry heat?

IV.—FINAL PROFESSIONAL EXAMINATION.

SURGERY—Two Hours.

(Four *questions only to be answered, including No.* 1.)

1 State *in detail* how you would operate in a case of strangulated inguinal hernia. What complications may follow operation?

2. Describe the anatomical arrangement of the psoas sheath. Give the aetiology, pathology, and treatment of psoas abscess.

3. Describe in detail the histological processes involved in the repair of a simple fracture of the shaft of the femur.

4. What are the symptoms and signs of tubercular arthritis of the hip joint?

5. In what ways may fracture of the base of the skull be produced? What are the clinical evidences of its existence?

PRACTICE OF MEDICINE—Two Hours.

1. Describe and explain the clinical facts which attend the advanced stage of alcoholic cirrhosis of the liver.

2. Describe the distinctive features of unconsciousness when this is due to (*a*) haemorrhage into the right internal capsule, (*b*) uraemia, (*c*) an epileptic fit. Discuss the treatment appropriate to the second of these conditions.

3. How may the occurrence of intestinal haemorrhage in the course of enteric fever be recognised? How should it be treated? Name the other possible complications of enteric fever.

4. Discuss the etiology of malignant endocarditis. What are the symptoms and physical signs of this disease?

MIDWIFERY AND GYNAECOLOGY—Two Hours.

(N.B.—*All the questions to be answered.*)

1. Give the conditions in which it may be necessary to perform version, and describe the various methods of performing the operation.

2. What are the probable causes of extra-uterine pregnancy? Give the diagnosis and possible results.

3. How would you diagnose the existence of a flat pelvis? Wherein does the mechanism of labour differ from the normal in such a pelvis?

4. What are the causes of menorrhagia and metrorrhagia? How would you treat the former?

5. Give the differential diagnosis of inversion of the uterus and a fibroid polypus. Give the details as to the treatment of the latter.

V.—FOR DEGREES IN LAW.

I. PRELIMINARY EXAMINATION FOR B.L.

a.—ARTS AND SCIENCE PRELIMINARY.

(See pp. 567—596.)

b.—ARTS SUBJECTS.

(Same as Degree of M.A. See pp. 596—632.)

II. LAW EXAMINATIONS FOR LL.B. AND B.L.

CIVIL LAW—Three Hours.

(For Degrees in Arts and Law.)

(TEN *questions to be attempted. Candidates for a degree in Law are recommended to answer at least* ONE *of the last* THREE *questions.*)

1. "The expulsion of the kings was a victory for conservatism." Discuss this statement, especially in regard to the position of the plebeians before and after the expulsion.

2. Where were authoritative statements of the Law of Rome to be found (*a*) in 50 B.C., (*b*) in 180 A.D., (*c*) in 450 A.D., (*d*) in 550 A.D.?

3. Determine the status of a child whose parentage was as follows:

(*a*) Roman father, peregrine mother;
(*b*) Peregrine father, Roman mother;
(*c*) Slave father, Roman mother;
(*d*) Roman father, slave mother;
(*e*) Slave father, slave mother.

Note any exceptional cases.

4. What were the rights of parties in regard to (*a*) a garment made of materials partly the maker's, partly another's, (*b*) a house built of one man's materials on another man's land, (*c*) the young of a domestic animal subject to a usufruct, (*d*) the child of a female slave subject to a usufruct?

5. Distinguish *dominium ex jure Quiritium* and *in bonis habere*, and how did one pass into the other?

6. How before and after Justinian could the various classes of heirs protect themselves from universal liability for the deceased's debts?

7. Mention one or two of the leading stages in the transition from the agnatic to the cognatic family, touching upon adoption, emancipation and intestate succession.

8. Explain *naturalis obligatio.* What (if any) were its effects?

9. *A*, *B* and *C* have jointly guaranteed to *D* a debt due him by *E*. What remedies has *A* in the event of *D* coming against him for the debt?

10. What is the following passage? Explain shortly its general purport and the meaning of the separate clauses:

Quidquid te mihi ex quacunque causa dare facere oportet oportebit praesens in diemve, quarumque rerum mihi tecum actio, quaeque abs te petitio vel adversus te persecutio est erit, quodque tu meum habes tenes possides dolove malo fecisti quominus possideas, quanti quaeque earum rerum res erit, tantam pecuniam dari stipulatus est Aulus Agerius, spopondit Numerius Negidius.

11. Examine the truth of the dictum *rei nostrae furtum facere non possumus.* Mention some other ways than the actual appropriation of a *res aliena* in which *furtum* could be committed.

12. Titius undertakes to deliver a slave to Maevius (*a*) as a gift, (*b*) in exchange for ten *aurei*, (*c*) in exchange for another slave. Which (if any) of these contracts is enforceable, and what is needed to complete enforceability in any case? Explain.

13. What was the effect of a sale of a thing (*a*) that has not yet come into existence (*res futura*), (*b*) that has ceased to exist (*res extincta*), (*c*) that is already the purchaser's property (*res sua*)?

14. Discuss briefly each of the following, (*a*) *laesio enormis*, (*b*) *pacta nuda, pacta vestita, pacta adjecta*, (*c*) *addictio in diem.*

LAW OF SCOTLAND—Three Hours.

(*Not more than* TEN *questions to be attempted, of which* ONE *must be in Criminal Law.*)

(*Reasons or reference to authority to be given as far as possible.*)

1. How far are husband and wife liable respectively for (*a*) the support of the wife's parents, (*b*) a personal bond granted by the wife with her husband's consent, (*c*) household goods supplied on the wife's orders?

2. Is restitution on the ground of minority and lesion pleadable against (*a*) a cautionary obligation, (*b*) a bond for borrowed money, (*c*) a bill of exchange granted in course of trade, and, if so in any case, on what conditions and within what period?

3. What is necessary to prove trust, agency, payment of money, sale of goods, sale of land?

4. By formally executed contract of sale *A* sells to *B* his ship "Peerless." Is *B* entitled to prove by parole evidence (*a*) that the conditions of sale were altered verbally, (*b*) that the seller and the buyer were each thinking of a different ship of the same name, (*c*) that at the date of the contract the "Peerless" had gone to the bottom? What is the effect of the alleged fact, if proved in any case?

5. Who is liable under a contract made by (*a*) an agent for an undisclosed principal, (*b*) an agent who has exceeded his instructions?

6. For what firm debts (if any) are the following liable: the widow of a deceased partner receiving a share of profits under the firm's contracts of copartnery, an active partner who has retired, a latent partner who has retired, a recently assumed partner?

7. Discuss the competency of the following defences stated by a cautioner, (*a*) that his obligation was verbal, (*b*) that the principal debtor has not been discussed, (*c*) that the creditor has agreed with the principal debtor to take payment by instalments, (*d*) that a cocautioner has been discharged.

8. How would you divide, between the heir and the executor of an intestate, a lease, a bond and disposition in security, the deceased's interest in an estate, consisting of both heritage and moveables, under a trust disposition containing a power of sale and directing the trustees to pay and convey the residue equally to and between the deceased and another person?

9. Explain *ex dominio solo non oritur actio.* Under what circumstances (if at all) and against whom have the following a claim of damages: (*a*) a person injured by falling into an unfenced pit, (*b*) the wife of the tenant of a dwelling-house injured by defective drainage, (*c*) a person on whose head a brick is dropped by a workman employed by a builder who is building a new wing under contract for the owner of a dwelling house?

10. What circumstances (speaking very generally) will make it advisable for an injured workman to seek his remedy at common law, under the Employers' Liability Act, 1880, and under the Workmen's Compensation Act, 1906, respectively?

11. A trader (*a*) on 1st February transfers stock to his marriage trustees to secure provisions made by him for the benefit of his wife and children in an antenuptial contract of marriage, (*b*) on 15th February, in payment of a past due debt, endorses a cheque to a creditor, (*c*) on 1st March pays £1000 in cash to a creditor. On 15th March he is sequestrated. Which (if any) of these transactions are reducible?

12. What crime (if any) is committed by a person who (*a*) knowingly leaves a window unfastened whereby a burglary is committed, (*b*) is arrested while in the act of forcing an entrance into a dwelling-house with intent to steal, (*c*) is arrested when on his way to commit a burglary, (*d*) offers a police constable a sovereign to buy off his arrest?

13. What is the competent procedure if it is alleged that an accused person was insane at the time of the alleged crime but is now sane, that he was and remains insane, that he was sane at the time of the alleged crime but is now insane, that at the time of the alleged crime he was sane but below the standard of intelligence of the normal man?

CONVEYANCING—THREE HOURS.

(*Not more than* TWELVE *questions to be attempted.*)

1. Distinguish Feudal from Allodial tenure. Give instances of the transfer from the one tenure to the other operated by statute or statutory proceedings, and explain the position of matters when the transfer is effected.

2. Did the legislative changes made in the Law of Conveyancing during last century cause any breach in the continuity of the underlying feudal principle? Illustrate your answer.

3. Write a short historical note on the restraints imposed on the sale of land in Scotland and their gradual removal, mentioning any devices resorted to, to render them ineffectual.

4. "A Description in any mode which secures the identification of the subjects is sufficient." Comment on this and mention any statutory enactments as to Descriptions by Reference.

5. Explain what is meant by saying that a Feuduty is a "*debitum fundi*" with special reference to a Superior's remedies against his vassal. Does the question of the Superior's own infeftment affect his rights of action?

6. What was the function of a Precept of Clare Constat? What feudal principle determined its nature?

7. What was the enfranchisement of an investiture? Notice in the answer the case of a common law Charter of Confirmation and a Charter in statutory form. Can there be an enfranchisement under the present law?

8. What is the present law as regards (1) redemption, and (2) commutation of casualties? How is the question of redemption affected when the Superiority is burdened with a heritable security?

9. In the case of an adjudication in implement, where the granter of an imperfect conveyance is dead, contrast shortly the present procedure for completion of title with that in use prior to 1810.

10. "An objection founded on the rule that a Trustee cannot be *auctor in rem suam* does not import an absolute nullity, but is merely a ground for challenge." Discuss this statement.

11. What are the powers of the heir of the last surviving Trustee in regard to the trust estate (*a*) when he is included in the destination in the Trust Disposition, and (*b*) when he is not so included?

12. Discuss the doctrine of the radical right of the granter of a Trust Deed, explain to what trusts the doctrine is applicable, and give illustrations.

13. How far can a creditor either under an *ex facie* absolute Disposition or an ordinary Security be regarded as *in titulo* to exercise powers open to a "proprietor"?

14. Sketch the powers and remedies of a creditor in a Bond and Disposition in Security in common form.

15. How far is it true to say that conditions attached to a gift prevent vesting?

16. In a testamentary bequest to a plurality of persons, on what canons of construction is a survivorship implied?

PUBLIC INTERNATIONAL LAW—THREE HOURS.

(*Omit* ONE *question in each of Sections A, B and C.*)

Reference to principle or authority is expected.

A.

1. Describe the position at international law of any one of the neutralised states. Consider the effect of an extension of its territory.

2. What is understood in international law by (*a*) a protectorate, (*b*) a sphere of influence? Mention the provisions of any international agreement containing general rules on these topics.

3. State the principles of international law, and, with examples, the practice relating to the navigation of rivers wholly or partly within the territory of one state by vessels belonging to another state.

4. To what extent and effect has a state jurisdiction over the gulfs and bays of its coasts?

B.

5. What are the conditions and limits within which state action is permissible (1) within foreign territory against individuals making it a starting point of attack, and (2) against neutral states possessing resources likely to be made use of by an enemy state? Refer to historical instances.

6. Who is an enemy? What is enemy cargo?

7. Define piracy and consider in particular whether privateering may properly be regarded as a form of piracy.

8. What is the right of angary or prestation? Give an instance of its exercise.

C.

9. Into what two branches does Hall divide international usage as between belligerents and neutrals? Mention any controversies or incidents in which, according to Hall, there has been confusion between these two branches.

10. Under what obligations does a neutral state lie with respect to vessels of war and vessels capable of being used for warlike purposes, equipped by or for a belligerent within its dominions? How does the municipal legislation of Great Britain compare with international requirements?

11. Discuss the question, to what extent (*a*) coal and (*b*) foodstuffs should be considered contraband of war.

12. What is meant by the 24 hours rule? How far has it been adopted (1) by state practice, (2) by the Second Peace Conference?

INTERNATIONAL PRIVATE LAW—Three Hours.

(*Omit* ONE *question in each of Sections A, B and C.*)

Reference to principle or authority is expected.

A.

1. How is the domicile of a minor determined? Consider cases of legitimacy, illegitimacy, orphanage under guardianship, and orphanage without guardianship.

2. What is meant by the doctrine of *renvoi*? Is it recognised in the courts of this country?

3. *A*, domiciled and resident in England, marries *B*, and shortly afterwards is deserted by her. By letter he calls upon her to return, but she refuses. There is no further communication between the parties, but, after the lapse of over four years, *A* comes to Scotland, where he establishes his domicile. Two years later he sues for divorce in the Court of Session on the ground of desertion. Is he entitled to succeed?

4. A domiciled Irishman, resident in Ireland, raised an action in the Court of Session against a tramway company operating in Scotland, to recover damages by way of solatium for the death of his son, who had been killed, as he averred, by their negligence. The law of Ireland does not recognise any claim for solatium, and accordingly the defenders pleaded that the action was irrelevant. Is their plea good?

B.

5. Who are "natural born British subjects"? State the rules relating to the nationality of married women.

6. A ship, registered in Scotland, underwent repairs in New York, to meet which certain advances were made by X on the security of Powers of Attorney granted in his favour by the master of the ship. The ship thereafter proceeded to Scotland, where she was brought to sale by creditors holding maritime liens over her duly constituted at Scots Law. X claimed to be ranked on the proceeds *pari passu* with the Scotch creditors. His Powers of Attorney were effectual under the law of New York State to give him a maritime lien over the vessel of equal value with the Scots liens, but ineffectual for this purpose according to municipal Scots Law. Is his claim good?

7. Give the chief provisions of the International Copyright Convention.

8. How far (if at all) does the compulsory employment of a pilot exempt the owners of a ship, in a Scots Court, from liability for damage caused in foreign territorial waters by the pilot's fault?

C.

9. How may a judgment pronounced in Scotland be enforced in England? To what judgments does the procedure apply?

10. What effect (if any) has the change of a testator's domicile, after execution of his will, upon the validity and construction of the will?

11. Prior to her marriage a Scotswoman executed a trust conveyance by which she conveyed her estate to Trustees. The deed was executed in contemplation of her marriage to a domiciled Englishman, but it was in Scots form, and two of the three Trustees nominated in it were Scotch. After her marriage the lady proposed to revoke the deed, and questions arose in the Court of Session as to the competency of the revocation, and the capacity of the lady to revoke. By what law or laws are these questions determinable?

12. Give a short report of four of the following cases:

In re Raffenel: *Brinkley* v. *Attorney General*: *Santos* v. *Illidge*: *Castrique* v. *Imrie*: *Hamlyn & Co.* v. *Talisker Distillery and others*: *Leroux* v. *Brown*.

JURISPRUDENCE—Three Hours.

(Ten *questions and* no more *to be answered.*)

1. In what senses may the expression "sources of law" be used, and what, according to Holland, are the various sources of law?

2. "The description of law as a 'command,' though essentially true, is inadequate to the extent of being misleading." Explain this, noticing Holland's view of the relation of law to rights, and the classification of law which he bases on this relation.

3. Define the expression "a natural person." What, according to Holland, are the necessary characteristics of a natural person?

4. "What might appear to be an infringement of a right often turns out upon investigation not to be one" (Holland). Elucidate this statement, with illustrations of apparent infringements.

5. Point out shortly the different classes of grounds on which a contract, correct in point of form, may be set aside.

6. On what ground does Maine deal with English case law as an example of legal fiction? Do you agree with his view? Give reasons.

7. How far is the theory tenable that "all early societies were formed by descent from the same ancestor"? State Maine's view, noting his explanation of the origin of the theory, and noting also the principle which gradually took its place.

8. How does Maine explain the origin, and the existence in modern law, of the disabilities of married women?

9. What, according to Maine, were the origin and the fundamental legal characteristics of feudalism?

10. Explain the preponderance of penal law in primitive codes. Discuss the claims of that element to be regarded as true criminal law.

For Students of Sessions prior to 1905-6 *only.*

11. Discuss the statement that "everyone has a right to live."

12. Explain and criticise the maxim that there is no wrong without a remedy.

13. Consider the question whether a sovereign power can limit, or divest itself of, its sovereignty.

For Students of Sessions subsequent to 1904-5 *only*

14. Give Kant's definition of "a personal right of a real kind." Indicate shortly his view of the legal character of family relations, and any criticism to which you consider them open.

15. What are Kant's views of the state and the law of nature and the social contract? Compare them with those attributed to Rousseau by Maine on these subjects.

16. What does Kant mean by Public Right? What are his principal divisions? Indicate shortly their nature and relations.

CONSTITUTIONAL LAW AND HISTORY.

THREE HOURS.

(*Omit* TWO *questions in each part.*)

PART I.

1. Discuss as concisely as possible the main points in Professor Freeman's theories of the Anglo Saxon migrations and the Norman Conquest.

2. How were Archbishops and Bishops appointed to vacant sees in England during the twelfth century? Did any disputes arise on this subject?

3. Sketch the early history of trial by jury in civil and criminal cases.

4. Compare the causes of the fall of Edward II. and Richard II. respectively.

5. In what ways did the suppression of the monasteries affect the relative positions of king, nobles and clergy?

6. What historical circumstances gave special weight to the authority of the Long Parliament when it met on 3rd November 1640? What use did it make of its opportunity?

7. Summarise the provisions of the Acts passed in the reign of Charles II. against nonconformity.

PART II.

8. Consider in what respects the development of the modern constitution would probably have been affected if the original provisions of the Act of Settlement had not been amended by subsequent Statutes.

9. Discuss and illustrate the principle—"The King can do no wrong." Contrast its practical working before and since the Revolution.

10. Explain the meaning of the term "constitutional." In what cases would you consider it constitutional for the Crown to make use of the prerogative of dissolution?

11. What control, if any, has the Crown over legislation (1) by the Imperial Parliament, and (2) by the Legislature of any Colony?

12. Contrast the powers and duties of the Speaker in the House of Commons and the Lord Chancellor in the House of Lords.

13. "The right to personal liberty as understood in England means in substance a person's right not to be subjected to imprisonment, arrest, or other physical coercion in any manner that does not admit of legal justification" (*Dicey*). Discuss.

14. Enumerate the principal privileges of parliament, referring to decided cases.

MERCANTILE LAW—Three Hours.

(*Not more than* EIGHT *questions to be attempted.*)

1. Mention the remedy or remedies (if any) competent to a man who has been induced to enter into a contract by the fraudulent representations of (*a*) the other contracting party, (*b*) the agent of the other contracting party, (*c*) his own agent, (*d*) the principal debtor, for whom he has become cautioner.

2. (*a*) When does the property in a ship built to order in the builder's yard, and paid for by instalments as the work proceeds, pass to the buyer?

(*b*) Under what circumstances will the buyer of a motor car (i) from the maker, (ii) from a former owner, be able to maintain an action for defects in the car? What will his remedy (if any) be?

3. How, and under what main conditions, under the Partnership Act, 1890, and the Limited Partnership Act, 1907, may persons be interested in the profits of businesses without incurring the liabilities of partners?

4. How far are the following competent:

(*a*) converting a private business into a limited company by procuring six female members of a trader's family to subscribe the memorandum of association for one £1 share apiece, the rest of the stock being taken by the trader himself:

(*b*) enlarging the scope of a company's business as defined in its memorandum of association:

(*c*) paying a commission from the funds of a company for underwriting an issue of shares:

(*d*) issuing debentures payable to bearer?

5. What are the rights of a holder in due course of a bill of exchange,

(*a*) where a bill stamp has been signed in blank by the acceptor and filled up by the drawer for a sum greatly exceeding what had been agreed upon:

(*b*) where the acceptor, though really an agent, has signed without any qualification:

(*c*) where a bill drawn by a Canadian merchant on a Glasgow merchant has been accepted for part only of the amount:

(*d*) where an indorsation is forged?

6. What is a negotiable instrument? How far are the following respectively negotiable instruments, a bill of exchange, a bill of lading, a delivery order?

7. The firm of *A* and *B* is bankrupt. It owes in all £180,000, including in that sum the partners *A*'s and *B*'s respective capitals

of £50,000 and £10,000, and an overdraft with its bankers of £40,000, secured by a bond and disposition in security over the works, valued at £20,000, and the obligation of a solvent cautioner. The assets of the firm amount to £60,000. *A* has, apart from his £50,000 in the firm, £10,000 of private assets and no private debts. *B* has, apart from his £10,000 in the firm, his dwelling house valued at £2,000 and £20,000 of private debts. Prepare schemes of ranking on the estates of the firm and partners, both under a trust deed and under a sequestration.

8. Under a bill of lading containing the usual exception clause including negligence of crew, is a shipowner liable for damage to or loss of cargo caused by (*a*) unseaworthiness, (*b*) theft, (*c*) capture, (*d*) negligence of a pilot, where employment of a pilot is compulsory? May the ship owner's liability, where there is no bill of lading, be excluded by notice, and within what pecuniary limits is it restricted by statute?

9. Discuss shortly the advantages and disadvantages of single ship companies under the Companies Acts as compared with vessels owned jointly under the Merchant Shipping Acts.

10. Explain and distinguish the terms General Average and Particular Average. A merchant insures goods for a voyage under a policy free of particular average. The goods are partially damaged by water poured into the ship's hold to extinguish a fire in another parcel of cargo. Can the merchant recover the loss from the underwriters?

FORENSIC MEDICINE—Two Hours.

(N.B.—Four *questions only to be answered.*)

1. Discuss the various circumstances, external and internal, which may modify the rate of progress and the nature of the putrefaction of a body.

2. What evidence in a medico-legal report should be deemed satisfactory as proof that certain stains found upon the clothing of a person charged with murder were composed of mammalian blood?

3. In what ways may medical evidence be of assistance in defence of an action of (*a*) affiliation and (*b*) in one of rape?

4. Discuss the legal effect of insanity in its different degrees on (1) criminal responsibility, and (2) testamentary capacity. In the former case, how may insanity be pleaded at a trial?

5. Give in some detail the law as to the sale of poisons generally, and of arsenic particularly.

VI.—FOR THE DEGREE OF B.D.

I. FIRST DEPARTMENT.

HEBREW.

FIRST PAPER—Three Hours.

1. Point and translate:

כי־תבא אל־הארץ אשר יהוה אלהיך נתן לך וירשתה
וישבתה בה ואמרת אשימה עלי מלך ככל־הגוים אשר
סביבתי׃ שום תשים עליך מלך אשר יבחר יהוה אלהיך
בו מקרב אחיך תשים עליך מלך לא תוכל לתת עליך
איש נכרי אשר לא־אחיך הוא׃ רק לא־ירבה־לו סוסים
ולא־ישיב את־העם מצרימה למען הרבות סוס ויהוה אמר
לכם לא תספון לשוב בדרך הזה עוד׃ ולא ירבה־לו
נשים ולא יסור לבבו וכסף וזהב לא ירבה־לו מאד׃ והיה
כשבתו על כסא ממלכתו וכתב לו את־משנה התורה
הזאת על־ספר מלפני הכהנים הלוים׃ והיתה עמו וקרא
בו כל־ימי חיו למען ילמד ליראה את־יהוה אלהיו לשמר
את־כל־דברי התורה הזאת ואת־החקים האלה לעשתם׃

2. Render into punctuated Biblical Hebrew:

Ye are the best nation that hath been raised up unto mankind, ye commend what is just and forbid that which is unjust and ye believe in God. And if they who have received the Scriptures had believed it had surely been better for them; there are believers among them but the greater part of them are transgressors. They shall not hurt you except slightly and if they fight against you they shall turn their backs to you and they shall not be helped. They are smitten wheresoever they are found unless they are secured by a treaty with God and a treaty with men, and they draw on themselves indignation from God and are afflicted with poverty. All this is their lot because they disbelieved the signs of God and slew the prophets of God unjustly. Yet they are not all alike. Some of them are upright people, who meditate on the signs of God in the night season and worship; they believe in God and the last day and zealously strive to exhibit good works. These are of the righteous.

Koran iii. 106-110.

SECOND PAPER—Three Hours.

I. 1. Translate Hosea XIII. 1-11.

2. Parse ישקון (v. 2), תדע (v. 4), וירם (v. 6), שחתך (v. 9).

3. What is the syntax of רתת (v. 1), להם (v. 2), משכים (v. 3), וישבעו (v. 6), שחתך (v. 9)?

4. Examine the various renderings that have been given of v. 2 b, and v. 9, and the various readings that have been proposed for the latter.

5. Account for *ἐποίμαινόν σε* and *κατὰ τὴν ὁδὸν Ἀσσυρίων*, as renderings of ידעתיך (v. 5), and על־דרך אשור (v. 7).

6. Remark on בתבונם (v. 2). Mention any various readings suggested.

II. 1. Translate Amos VIII. 1-10.

2. Parse אוסיף (v. 2) and ולשבית (v. 4).

3. Give the syntax of השליך (v. 3), ולשבית (v. 4), ונשבירה (v. 5), לארץ (v. 9).

4. To what does the suffix in ושמתיה (v. 10) refer?

5. Remark on the Q're and K'thibh in v. 4 and v. 8.

6. Explain בגאון יעקב (v. 7) and אבל יחיד (v. 10).

7. Account for *συντέλεια* as a rendering of כלה (v. 8).

III. 1. Translate Psalm CI.

2. Parse מלושני (v. 5), and יכון (v. 7).

3. Give the syntax of תבוא (v. 2) אשכילה and אתהלך (v. 2).

4. Explain עשה־סטים (v. 3).

5. Account for *τούτῳ οὐ συνήσθιον* as a rendering of

אתו לא אוכל (v. 5).

6. What evidence, if any, does this Psalm itself give of its date and authorship?

IV. 1. What information may be gathered from the Book of Amos in regard to (*a*) the history, and (*b*) the religion of Israel?

2. What are (*a*) the contents, and (*b*) the date of the Book of Nahum?

NEW TESTAMENT EXEGESIS—Three Hours.

1. Translate Matthew vii. 28, 29; xi. 1; xiii. 53.

In regard to the discourses of our Lord, at the close of which these three passages stand, two opinions have been held, viz. that each discourse owes its form to (1) the Evangelist, or (2) Jesus himself. Which opinion is favoured by the three passages, or is there any third view with which the three passages would be in keeping?

2. In Matt. xiii. 24—52, the phrase *ἡ βασιλεία τῶν οὐρανῶν* occurs several times. Is it always used in the same sense? If not, expound the different senses.

3. Compare Matt. xiv. 1—12, with Mark vi. 14—29. Analyse the structure of each passage into its two main parts. What is the bond of connection in each case, and what inference suggests itself as to the composition of the two gospels?

4. Phil. ii. 25 *Ἀναγκαῖον δὲ ἡγησάμην Ἐπαφρόδιτον, τὸν ἀδελφὸν καὶ συνεργὸν καὶ συνστρατιώτην μου, ὑμῶν δὲ ἀπόστολον καὶ λειτουργὸν τῆς χρείας μου, πέμψαι πρὸς ὑμᾶς,* 26 *ἐπειδὴ ἐπιποθῶν ἦν πάντας ὑμᾶς καὶ ἀδημονῶν, διότι ἠκούσατε ὅτι ἠσθένησεν.* 27 *καὶ γὰρ ἠσθένησεν παραπλήσιον θανάτῳ· ἀλλὰ ὁ θεὸς ἠλέησεν αὐτόν, οὐκ αὐτὸν δὲ μόνον ἀλλὰ καὶ ἐμέ, ἵνα μὴ λύπην ἐπὶ λύπην σχῶ.* 28 *σπουδαιοτέρως οὖν ἔπεμψα αὐτόν, ἵνα ἰδόντες αὐτὸν πάλιν χαρῆτε κἀγὼ ἀλυπότερος ὦ.* 29 *προσδέχεσθε οὖν αὐτὸν ἐν κυρίῳ μετὰ πάσης χαρᾶς, καὶ τοὺς τοιούτους ἐντίμους ἔχετε,* 30 *ὅτί διὰ τὸ ἔργον Χριστοῦ μέχρι θανάτου ἤγγισεν παραβολευσάμενος τῇ ψυχῇ, ἵνα ἀναπληρώσῃ τὸ ὑμῶν ὑστέρημα τῆς πρός με λειτουργίας.*

ver. 26	*πάντας ὑμᾶς*	ℵ^{c}FGKLP
	ὑμᾶς πάντας	B
	πάντας ὑμᾶς ἰδεῖν	ℵ*ACDE

ver. 30	*το ἔργον Χριστοῦ*	BFG
	το ἔργον του Χριστοῦ	DEKL
	το ἔργον Κυρίου	ℵ AP
	τὸ ἔργον	C
ver. 30	*παραβολευσαμενος*	ℵ ABDEFG
	παραβουλευσάμενος	CKLP

(*a*) Discuss the claims of these various readings.

(*b*) State precisely the shade of meaning represented by each.

(*c*) Comment on the following expressions: *ἡγησάμην, δε, ἀπόστολον* in ver. 25; *ἐπιποθῶν ἦν, ἀδημονῶν* in ver. 26; *καὶ γάρ, δέ* in ver. 27; *ἔπεμψα, παλιν* in ver. 28; *προσδέχεσθε, καὶ τους τοιουτους εντιμους ἔχετε* in ver. 29; *παραβολευσαμενος τῃ ψυχῃ, ὑστέρημα* in ver. 30. Give special heed to the tenses.

5. Translate Phil. iii. 13 *Ἀδελφοί, ἐγὼ ἐμαυτον οὔπω λογίζομαι κατειληφεναι· 14 ἓν δέ, τα μεν ὀπισω ἐπιλανθανόμενος, τοις δὲ ἐπεκτεινόμενος, κατὰ σκοπον διωκω εἰς τὸ βραβεῖον της ἄνω κλήσεως τοῦ θεοῦ ἐν Χριστῷ Ἰησοῦ. 15 ὅσοι οὖν τελειοι, τοῦτο φρονῶμεν· και εἴ τι ἑτερως φρονεῖτε, καὶ τοῦτο ὁ θεὸς ὑμῖν ἀποκαλύψει· 16 πλὴν εἰς ὃ ἐφθάσαμεν, τῷ αὐτῷ στοιχεῖν.*

ver. 13	*οὔπω*	ℵ AD*P
	οὐ	BD EFGKL
ver. 14	*εἰς*	ℵ AB
	ἐπι	DEFGKLP
ver. 15	*φρονῶμεν*	ABDEFGKP
	φρονοῦμεν	ℵL
ver. 16	*τῳ αὐτῳ στοιχεῖν*	ℵ* AB
	τῷ αὐτῳ στοιχεῖν κανόνι, το αὐτο φρονεῖν	ℵ KLPD
	τὸ αὐτὸ φρονεῖν τῳ αὐτῷ στοιχεῖν	D*
	τὸ αὐτὸ φρονεῖν τῷ αὐτῳ συνστοιχεῖν	F

(*a*) Discuss these various readings.

(*b*) State precisely the shade of meaning represented by each.

(*c*) Comment on the following expressions: *ἀδελφοι, ἐγω* in ver. 13; *ἓν δε, διώκω, βραβεῖον, ἄνω* in ver. 14; *τελειοι, και τουτο* in ver. 15; *πλὴν, ἐφθάσαμεν, στοιχεῖν* in ver. 16.

6. Translate Phil. iv. 10 *Ἐχάρην δε ἐν κυρίῳ μεγάλως ὅτι ἤδη ποτὲ ἀνεθάλετε τὸ ὑπὲρ ἐμοῦ φρονεῖν· ἐφ᾽ ᾧ και ἐφρονεῖτε, ἠκαιρεῖσθε δέ.* Point out the difficulties in the construction and in the exegesis of this verse. Note the force of the tenses used.

APOLOGETICS—THREE HOURS.

1. Give a comprehensive definition of religion. Compare with other definitions, and discuss alleged cases of tribes found without religion.

2. Is belief in God (or gods) essential to religion? Consider in this connection Buddhism, Comtism, and Seeley's "Natural Religion."

3. What views are held as to the relations of faith and reason in religion? Consider Hegel, Ritschl, Sabatier, in this respect.

4. What is Totemism? Illustrate the forms it assumes, and discuss it as a proposed theory of the origin of religion.

5. Give an account *either* (1) of the ancient Babylonian, *or* (2) of the ancient Persian (Zoroastrian), religion. Show supposed bearings on the religion of Israel.

6. "All religion originates in revelation." Examine this. How far is the idea of revelation applicable to heathen religions?

7. Consider miracle in relation to the uniformity of nature. Apply to Christ's miracles.

8. Discuss Christ's character and claims in the Synoptic Gospels in their bearing on His superhuman dignity and authority.

9. What is Monism? Explain its chief modern forms.

10. Discuss *either* (1) Materialism, *or* (2) Pessimism, as a theory of existence.

II. SECOND DEPARTMENT.

DIVINITY—Three Hours.

1. Note the supernatural elements in the representation of Jesus in the Synoptic Gospels. Compare with the Fourth Gospel.

2. Explain and remark on *two* of the following theories of Christ's Person—(1) the Arian; (2) the Nestorian; (3) the Monophysite; (4) the Kenotic (modern).

3. Contrast the Lutheran and Reformed views on the subject of the ubiquity of Christ's humanity.

4. "Christ has the religious value of God." Discuss this statement.

5. Connect the New Testament doctrine of Atonement with the Old Testament doctrine of Sacrifice.

6. Examine briefly the chief sayings of Jesus on the saving virtue of His death.

7. How far is it legitimate to speak of a "penal" element in Christ's death? Indicate the principal views on this point.

8. Discuss *one* of the following theories of Atonement—(1) the Anselmic; (2) the Grotian; (3) M'Leod Campbell's.

9. Explain and examine the Ritschlian distinction of religious and theoretic knowledge. Show its bearings on doctrine.

10. Connect Ritschl's doctrine of Justification with his views of sin and guilt.

CHURCH HISTORY—Three Hours.

1. Describe the measures taken for relief of Roman Catholic disabilities, and the close of the struggle in the passing of the Emancipation Act.

2. Explain the rise and character of the Oxford Movement, and show its effects on church architecture and worship.

3. Sketch, with reference to the *Apologia*, the life of J. H. Newman. Explain his views in No. 90 of "Tracts for the Times."

4. Give an account of the attacks on the Established Church in England, and sketch the Voluntary Controversy in Scotland; *or* Explain the decisions as to the tenure of property of the English Congregations which had become Unitarian.

5. Describe the career of Edward Irving, and the origin and nature of the Catholic Apostolic Church.

6. Show the circumstances which led to the "Veto Act" and "Chapel Ministers Act," and explain the rival policies of leaders like Dr. Cook and Dr. Chalmers.

7. Give an account of the Auchterarder and Strathbogie cases in the ensuing conflict.

8. Describe the Unions of (1) New Light Burghers and Antiburghers in Scotland, and (2) the Synod of Ulster and the Secession Synod in Ireland.

9. Remark on *three* of the following: Dr. T. Arnold, Bishop Heber, Dr. E. B. Pusey, Coleridge, Southey, Robert Haldane, Archbishop Whately, James Morison.

10. Explain the relation of the Scottish Episcopal Church in this period (1) to the Anglican Church; (2) to the Presbyterian Communions in Scotland. Remark on the work of Bishop Gleig.

TEXTUAL CRITICISM—Three Hours.

1. Explain the terms: *uncial, cursive, palimpsest; majuscule, minuscule; itacism, homaoteleuton, dittograph, conflate.*

2. What are the conventions commonly used by textual critics in citing the various authorities for the text? How did they arise? Point out any ambiguities in these conventions.

3. Describe the following MSS.: Codex Sinaiticus, Codex Vaticanus, Codex Alexandrinus, Codex Bezae, Codex Ephraemi Rescriptus, Codex Sangallensis, noting the origin of their names, and giving their estimated age, their known history, and the characteristics of their peculiar readings.

4. What special merits and drawbacks attach to Versions and Patristic Citations respectively as sources of evidence for the text of the New Testament?

5. Westcott and Hort distinguish between *intrinsic probability* and *transcriptional probability*. Explain what is meant.

6. Describe the method to be followed in judging of Transcriptional Probability in the case of two or more various readings of the same passage.

7. *Proclivi scriptioni praestat ardua. Brevior lectio praeferenda est verbosiori. Lectio reliquarum fons, probabilis.* State the reasons for each of these canons, and hence determine the limits for their legitimate use.

8. Give some account of the theories of recensions. What are the chief characteristics of the several groups in which the MSS. of the Gospels arrange themselves? By what arguments do Westcott and Hort seek to prove that a Syrian Recension was made between A.D. 250 and A.D. 350?

HERMENEUTICS—THREE HOURS.

1. Is Textual Criticism a part of Hermeneutics? State precisely the scope assigned to Hermeneutics by those who answer this question (*a*) in the affirmative, (*b*) in the negative. Which view do you take? Justify your answer.

2. Classify the causes which render the meaning of an ancient writing obscure to an uninitiated modern reader, and enumerate the resources at our command for elucidating it.

3. The speaker proceeds from thought to speech, the hearer from speech to thought. Analyse the conditions and steps in the former process, and also those in the latter. Substitute *ancient writer* for *speaker*, and *modern reader* for *hearer*, and thence deduce the several steps in the hermeneutical process.

4. State the general causes by the operation of which several meanings have come to be attached to certain words. When a word having more than one meaning occurs in a passage, how is the particular meaning in that passage to be ascertained?

5. What is the chief difference between Classic Greek and the Greek of the New Testament in respect of the structure of sentences? What explanations have been given of this difference?

6. State the causes, general and special, which lead to the use of figurative language, and indicate the precautions to be taken in its interpretation.

7. Define Parable, and distinguish it from Fable on the one hand and Allegory on the other. "The Parables of our Lord are either symbolical or typical." Explain this statement, and give illustrations.

8. Mention the circumstances which gave rise to the Allegorical Method of Interpretation among the Greeks and the Hellenist Jews, and to the adoption of it by the early Christians.

VII.—FOR SCHOLARSHIP EXAMINATIONS.

I. LUKE HISTORICAL PRIZE.

First Paper.

LATIN TRANSLATION.

Translate, naming in each case the author and the particular work :

1. hosce igitur imperatores habebimus? quorum alter non audet nos certiores facere, cur imperator appelletur, alterum, si tabellarii non cessarint, necesse est paucis diebus paeniteat audere, cuius amici si qui sunt, aut si beluae tam immani tamque taetrae possunt ulli esse amici, hac consolatione utuntur, etiam T. Albucio supplicationem hunc ordinem denegasse. quod est primum dissimile, res in Sardinia cum mastrucatis latrunculis a propraetore una cohorte auxiliaria gesta et bellum cum maximis Syriae gentibus et tyrannis consulari exercitu imperioque confectum. deinde Albucius, quod a senatu petebat, ipse sibi in Sardinia ante decreverat. constabat enim Graecum hominem ac levem in ipsa provincia quasi triumphasse. itaque hanc eius temeritatem senatus supplicatione denegata notavit. sed fruatur sane hoc solacio atque hanc insignem ignominiam, quoniam uni praeter se inusta sit, putet esse leviorem, dum modo, cuius exemplo se consolatur, eius exitum expectet, praesertim cum in Albucio nec Pisonis libidines nec audacia Gabini fuerit ac tamen hac una plaga conciderit, ignominia senatus

atqui duas Gallias qui decernit consulibus duobus, hos retinet ambo; qui autem alteram Galliam et aut Syriam aut Macedoniam, tamen alterum retinet et in utriusque pari scelere disparem condicionem facit. "faciam," inquit, "illas praetorias, ut Pisoni et Gabinio succedatur statim." si hic sinat! tum enim tribunus intercedere poterit, nunc non potest. itaque ego idem, qui nunc consulibus iis, qui designati erunt, Syriam Macedoniamque decerno, decernam easdem praetorias, ut et praetores annuas provincias habeant et eos quam primum videamus, quos animo aequo videre non possumus. sed, mihi credite, numquam succedetur illis, nisi cum ea lege referetur, qua intercedi de provinciis non licebit. itaque hoc tempore amisso annus est integer vobis exspectandus, quo interiecto civium calamitas, sociorum aerumna, sceleratissimorum hominum impunitas propagatur.

2. ordinem atrocissimae calamitatis, qua nulla post Crassi in Parthis damnum in externis gentibus grauior Romanis fuit, iustis uoluminibus ut alii, ita nos conabimur exponere: nunc summa deflenda est. exercitus omnium fortissimus, disciplina, manu experientiaque bellorum inter Romanos milites princeps, marcore ducis, perfidia hostis, iniquitate fortunae circumuentus, cum ne pugnandi quidem egrediendiue occasio nisi iniqua nec in quantum uoluerant data esset inmunis, castigatis etiam quibusdam graui poena, quia

Romanis et armis et animis usi fuissent, inclusus siluis, paludibus, insidiis ab eo hoste ad internecionem trucidatus est, quem ita semper more pecudum trucidauerat, ut uitam aut mortem eius nunc ira nunc uenia temperaret. duci plus ad moriendum quam ad pugnandum animi fuit : quippe paterni auitique successor exempli se ipse transfixit. at e praefectis castrorum duobus quam clarum exemplum L Eggius, tam turpe Ceionius prodidit, qui, cum longe maximam partem absumpsisset acies, auctor deditionis supplicio quam proelio mori maluit. at Vala Numonius, legatus Vari, cetera quietus ac probus, diri auctor exempli, spoliatum equitem peditem relinquens fuga cum aliis Rhenum petere ingressus est. quod factum eius fortuna ulta est ; non enim desertis superfuit, sed desertor occidit. vari corpus semiustum hostilis lacerauerat feritas ; caput eius abscisum latumque ad Maroboduum et ab eo missum ad Caesarem gentilicii tamen tumuli sepultura honoratum est.

3. primus e fisco Latinis Graecisque rhetoribus annua centena constituit ; praestantis poetas, nec non et artifices, Coae Veneris, item Colossi refectorem insigni congiario magnaque mercede donavit ; mechanico quoque, grandis columnas exigua impensa perducturum in Capitolium pollicenti, praemium pro commento non mediocre optulit, operam remisit, praefatus "sineret se plebeculam pascere." Ludis, per quos scaena Marcelliani theatr. restituta dedicabatur, vetera quoque acroamata revocaverati apellari tragoedo quadringenta, Terpno Diodoroque citharoedis ducena. nonnullis centena, quibus minimum quadragena sestertia super plurimas coronas aureas dedit. sed et convivabatur assidue, ac saepius recta et dapsile, ut macellarios adiuvaret. dabat sicut Saturnalibus viris apophoreta, ita per Kl. Mart. feminis ; et tamen ne sic quidem pristina cupiditatis infamia caruit. Alexandrini Cybiosacten eum vocare perseveraverunt, cognomine unius e regibus suis turpissimarum sordium. sed et in funere Favor archimimus personam eius ferens imitansque, ut est mos, facta ac dicta vivi, interrogatis palam procuratoribus, quanti funus et pompa constaret, ut audit, sestertio centiens, exclamavit, centum sibi sestertia darent, ac se vel in Tiberim proicerent.

statura fuit quadrata, compactis firmisque membris, vultu veluti nitentis : de quo quidam urbanorum non infacete : siquidem petenti, ut et in se aliquid diceret, Dicam, inquit, cum ventrem exonerare desieris. valitudine prosperrima usus est, quamvis ad tuendam eam nihil amplius quam fauces ceteraque membra sibimet ad numerum in sphaeristerio defricaret, inediamque unius diei per singulos menses interponeret.

SECOND PAPER.

Translate, with historical notes where required :

(*a*) Herodotus, IX. 60.
(*b*) Solon *apud* Aristot., *Athen. Pol.* 12. 4.
(*c*) Xenophon, *Hellenica*, II. 4. 2.
(*d*) Polybius, *Hist.* II. 56. 1–8.

THIRD PAPER.

(FOUR *of the following questions to be attempted.*)

1. Explain, with illustrations, the meaning of a *lex curiata.*

2. Sketch the relations between Rome and Gaul before Caesar.

3. Describe the nature and importance of the *publicani.*

4. What are the chief epochs in the Hellenizing of Roman literature and manners?

5. Contrast the imperial powers as wielded by Augustus and by Domitian.

6. Trace the decline of the Senate's influence under the Republic.

FOURTH PAPER.

(FOUR *of the following questions to be attempted.*)

1. Discuss the foreign influences which tended to modify the civilisation of Greece before the time of Alexander.

2. Consider the social development of Greece before the Persian Wars.

3. Give some account of the Spartan constitution, showing how it affected the history of Sparta.

4. Explain the failure of the Athenian enterprise in Sicily.

5. What means can we employ to check the accuracy of Herodotus' account of the Persian invasions?

6. Elucidate the history of Thebes from the end of the Peloponnesian War to the Peace of Philocrates.

7. Estimate the character and work of Agesilaus *or* of Eubulus.

II. SNELL EXHIBITION.

LATIN TRANSLATION.

Translate :

(*a*) Cicero, *Orator*, §§ 73–4.

(*b*) Val. Flaccus, *Argonaut.* i. 699–718.

(*c*) Livy, xxv. 3.

FOR LATIN PROSE.

At this period, and as if to save this fair realm from the various woes with which it was menaced, the tottering throne was ascended by Louis XI., whose character, evil as it was in itself, met, combated, and in a great degree neutralized, the mischiefs of the time, as poisons of opposing qualities are said, in ancient books of medicine, to have the power of counteracting each other. Brave enough for every useful and political purpose, Louis had not a spark of that romantic valour, or of the pride generally associated with it, which fought on for the point of honour, when the point of utility had been long gained. Calm, crafty, and profoundly attentive to his own interest, he made every sacrifice, both of pride and passion, which could interfere with it. He was careful in disguising his real sentiments and purposes from all who approached him, and frequently used the expression, "that the king knew not how to reign, who knew not how to dissemble, and that, for himself, if he thought his very cap knew his secrets, he would throw it into the fire." No man of his own or of any other time better understood how to avail himself of the frailties of others, and when to avoid giving any advantage by the untimely indulgence of his own. He was by nature vindictive and cruel, even to the extent of finding pleasure in the frequent executions which he commanded. But as no touch of mercy ever induced him to spare, so no sentiment of vengeance ever stimulated him to a premature violence. He seldom sprung on his prey till it was fairly within his grasp, and till all hope of rescue was vain: and his movements were so studiously disguised, that his success was generally what first announced to the world the object he had been manœuvring to attain. SIR W. SCOTT.

FOR LATIN VERSE.

(*Not more than* TWO *pieces should be attempted.*)

1. FOR LATIN HEXAMETERS.

For in the far-off years, when Time was young,
And Love unborn on earth, and Zeus in heaven
Ruled, a young sovereign; I, a maiden dwelt
With loved Demeter on the sunny plains
Of our own Sicily. There, day by day,
I sported with my playmate goddesses
In virgin freedom. Budding age made gay
Our lightsome feet, and on the flowery slopes
We wandered daily, gathering flowers to weave
In careless garlands for our locks, and passed
The days in innocent gladness. One fair morn—
Not all the ages blot it—on the side
Of Aetna were we straying. There was then
Summer nor winter, springtide nor the time
Of harvest, but the soft unfailing sun
Shone always, and the sowing time was one
With reaping; fruit and flower together sprung
Upon the trees, and blade and ripened ear
Together clothed the plains. There, as I strayed
Sudden a black cloud down the rugged side
Of Aetna, mixed with fire and dreadful sound
Of thunder, rolled around me, and I heard
The maids who were my fellows turn and flee
With shrieks and cries for me. L. MORRIS.

2. For Latin Elegiacs.

Fame, wisdom, love, and power were mine
  And health and youth possess'd me;
My goblets blush'd from every vine,
  And lovely forms caress'd me;
I sunned my heart in beauty's eyes
  And felt my soul grow tender;
All earth can give or mortal prize
  Was mine of regal splendour.

I strive to number o'er what days
  Remembrance can discover,
Which all that life or earth displays
  Would lure me to live over.
There rose no day, there roll'd no hour
  Of pleasure unembitter'd;
And not a trapping deck'd my power
  That gall'd not while it glitter'd.

The serpent of the field by art
  And spells, is won from harming:
But that which coils around the heart.
  Oh! who hath power of charming!
It will not list to wisdom's love,
  Nor music's voice can lure it;
But there it stings for evermore
  The soul that must endure it.

Byron

3. For Latin Lyrics.

Music when soft voices die
Vibrates in the memory.
Odours when sweet violets sicken
Live within the sense they quicken.
Rose leaves, when the rose is dead,
Are heap'd for the beloved's bed:
And so thy thoughts, when thou art gone
Love itself shall slumber on.

Shelley.

Or,

For a Latin Epigram.

The German Emperor.

GREEK TRANSLATION.

Translate:

(*a*) Demosthenes, *Phil.* III, §§ 28—31.

(*b*) Sophocles, *Trachin.* 672—700.

(*c*) Plutarch, *de Ser. Num. Vind.* 563 e—564 b.

For Greek Prose.

Look at our maritime power, at our commercial opulence, at our martial glory, at the proud list of our great men; and then reflect from what we were raised, and by what means. These things should inspire us with hope, and not with hope alone. Shall not we, who live in the full blaze of morals and intellect, exert ourselves for the welfare of those over whose fate we possess an irresistible control, and in whose wrongs we have most deeply participated? Again therefore and again we pledge ourselves to this good cause. Danger, difficulty and opposition shall only animate us to the work. We will consider every success as a presage of final triumph; every failure as a call for redoubled exertions. Slander, enmity, ridicule, we expect and we despise. When the Crusader in Tasso lifts his sword to break the enchantment of the haunted forest, gigantic forms surround him, terrible voices menace him, the wind roars, the skies are darkened, the earth shakes beneath his feet; but the blow is struck, and instantly the sun shines forth, the storm subsides, and the demons fly howling from the spot which they could pollute no longer. We are bound on a higher adventure: we are sworn to undo the spell of a fouler witchcraft; and it is not by any tempest which the worst arts of our adversaries can conjure up that we will be turned back from the enterprise. Never, never shall this conflict be terminated but by a decisive victory of those principles of honour, benevolence and freedom from which alone States can derive a substantial prosperity and statesmen an immortal renown.

Macaulay (*On the abolition of Slavery.*)

For Greek Iambics.

Now, for thyself. Thou com'st with well-cloaked joy,
To announce the ruin of my husband's house,
To sound thy triumph in his widow's ears,
To bid her share thine unendangered throne:—
To this thou would'st have answer.—Take it: Fly!
Cut short thy triumph, seeming at its height;
Fling off thy crown, supposed at last secure;
Forsake this ample, proud Messenian realm:
To some small, humble, and unnoted strand,
Some rock more lonely than that Lemnian isle
Where Philoctetes pined, take ship and flee:
Some solitude more inaccessible
Than the ice-bastioned Caucasean mount,
Chosen a prison for Prometheus, climb:
There in unvoiced oblivion hide thy name,
And bid the sun, thine only visitant,
Divulge not to the far-off world of men
What once-famed wretch he hath seen lurking there.
There nurse a late remorse, and thank the Gods,
And thank thy bitterest foe, that, having lost
All things but life, thou lose not life as well.

M. Arnold.

CRITICAL PAPER.

(*Not more than* FIVE *questions should be attempted.*)

1. What are the chief ways of expressing prohibitions in Latin? Give illustrations.

Or,

Describe and illustrate the main uses of the infinitive in Homer.

2. State and discuss the chief theories as to the origin of grammatical genders.

3. Is the Greek or the Latin language best adapted (*a*) for exactness of expression, (*b*) for the highest eloquence?

4. Why are Sophocles and Virgil so difficult to translate?

5. Discuss the different interpretations of one of the following plays: the Eumenides, the Alcestis, the Bacchae, the Medea.

6. 'Curae plus in illo, in hoc naturae.' Does this express the difference between the oratory of Cicero and that of Demosthenes?

7. What do you know of the practice of magic among the Greeks and Romans?

8. Describe the main buildings *either* on the Acropolis at Athens in the fourth century B.C. *or* in the Forum at Rome in the time of the Early Empire.

9. Is popularity a test of merit in works of art?

10. Is Poverty a fit subject for literary and artistic treatment?

11. Write a short account of *two* of the following: Menander, M. Terentius Varro, Myron, Heine, Machiavelli, Moliere, Schubert, Giotto, Weismann.

HISTORY.

(*Not more than* SIX *questions to be answered.*)

1. Compare the state of society presented in Homer with that of later Greece.

2. The influence of Delphi in the Greek world.

3. Why did the Persian Empire collapse under the attack of Alexander?

4. Why did the attempt to democratize the government of Rome lead to a monarchy?

5. Describe the tactics employed at *one* of the following battles: Mantinea (in the Peloponnesian war), Cannae, Pydna, Pharsalia, Talavera.

6. The resemblances and contrasts between the First and Second Triumvirate.

7. 'The ancient historians wavered between word-painting and preaching.' Examine this.

8. Did Napoleon do more harm or good in Europe?

9. Give a short account of any *two* of the following: The Emperor Charles V., William III. of England, the Empress Catherine of Russia, Sir Robert Peel, Cavour, Prince Bismarck.

10. Should rates be levied on the full value of a house or only on the value of its site?

FOR AN ENGLISH ESSAY.

What are the chief tests of national welfare?

XV.—VACATION EXERCISES, Etc.,

For 1909-10.

HEBREW CLASSES.

I. For members of the Senior Hebrew Class of 1908-9:
   1. An essay on the religion and poetry of the Psalms as exemplified in Book iv. of the Psalter.
   2. An original composition in Biblical Hebrew on a subject chosen by the student.

II. For members of the Junior Hebrew Class of 1908-9:
   1. Recitation of Ecclesiastes, chaps. i.—ii.
   2. Reading of Samuel, Book i.

Professions to be given in, in writing, not later than 21st October, 1909.

GREEK CLASSES.

Open to any Member of the Greek Class, Session 1909-10.

1. For Attic Prose—Bunyan, *Pilgrim's Progress*—"Now when he was got up to the top of the hill" (Christian's meeting with Timorous and Mistrust) down to "even according to the law of the house" (Christian's reception at the palace called Beautiful).

2. An essay on Socrates.

The same student may enter for both the above competitions. Several prizes may be given for each competition.

The exercises to be sent in by 22nd October, 1909.

HUMANITY CLASS.

Prizes will be given for Vacation Exercises as follows:

Open to all members of the Senior or Honours Class of 1908-9:—

I. To learn by heart Propertius, *Eleg.* IV. xi.

II. To put into Latin Prose Sam Johnson, *The Idler*, No. 49.

III. To put into Latin Elegiacs Byron, *Childe Harold*, Canto IV. cxiv.–cxxvi.

The examination in I. will be held early in November, 1909. The versions must be sent in to the Professor on or before 1st November. Each exercise must bear a motto, and be accompanied by an envelope bearing the same motto, with the writer's name inside, together with a statement that the exercise is his own unaided work.

CLASS OF BOTANY.

A prize is offered to matriculated students who have passed through the Class of Botany in the University, for the best and approved Herbarium of Scottish Phanerogamous and Vascular Cryptogamous Plants, to be named after Hooker's *Students' Flora of the British Islands.* This competition is open also to students who have taken the full qualifying course in Botany for M.A. The specimens must have been collected upon the mainland of Scotland, or upon the Scottish Islands, between 1st April, 1908, and 1st October, 1909, and must have affixed, in addition to the name, the date and locality of collection.

The Herbaria must be sent, addressed to the Professor of Botany, to the University of Glasgow, on or before 6th October, 1909, and with each a sealed note bearing a motto outside, and containing the name of the competitor, with a declaration that the plants in the collection have all been gathered by himself in Scotland, and within the period above stated, and that they have been named by him without assistance, save that derived from books on Herbaria.

The collections must be accompanied by a numbered and arranged list of the plants contained in them.

Students of the first year in Botany are informed that a similar prize will be offered in October, 1910, and are advised to begin collecting for that competition in April, 1909.

MORAL PHILOSOPHY.

A sum of five guineas, given by Mrs. John Caird, will be awarded in prizes to the students who, entering the Honours Class for the first time in session 1909-10, gain the highest marks in an examination on

(*a*) The general history of Ethics in Britain from Hobbes to Spencer (both included).

(*b*) The Ethics of Aristotle.

(*c*) The Ethical theory of Kant.

(*d*) Bosanquet's Theory of the State.

XVI.—FINANCIAL STATEMENT OF THE UNIVERSITY FOR 1907-8.

INCOME.

I. Parliamentary Grant—		
(*a*) Under Universities Act, 1889,	£12,180 0 0	
(*b*) Under Education and Local Taxation Act, 1892,	8,700 0 0	
		£20,880 0 0
II. Class Fees—		
(*a*) Constituting the Fee Fund,	£28,550 12 6	
(*b*) Other Classes,	1,741 1 9	
		30,291 14 3
III. Other Fees—		
(*a*) Matriculation,	£2,641 3 6	
(*b*) Examination and Graduation,	6,055 2 6	
(*c*) Registration,	340 0 0	
(*d*) Recognition towards expenses of inspection,	5 5 0	
(*e*) Miscellaneous	89 2 0	
		9,130 13 0
IV. Special Endowments—		
(*a*) Chairs,	£3,060 7 7	
(*b*) Lectureships,	1,763 8 9	
(*c*) Demonstratorships, etc.,	549 17 8	
		5,373 14 0
V. Teinds (less Ministers' Stipends, £1,920 14s. 2d.), Feu-duties, Ground Annuals, Dividends, Interest, and Rents,		11,568 11 1
VI. Library—		
(*a*) Carnegie Trust,	£1,000 0 0	
(*b*) Subscriptions,	82 8 6	
(*c*) Revenue of Legacy Funds (including £10 from Euing Fund),	56 0 0	
(*d*) Annual Grant from M'Callum Fund for Celtic Library,	10 0 0	
		1,148 8 6
VII. Contributions to cost of New Buildings and Equipment.		
(*a*) Balance from 1906-7,	£286 9 7	
(*b*) Carnegie Trust,	9,433 14 8	
(*c*) M'Kendrick Memorial.	452 2 10	
(*d*) Advance by University,	4,111 4 8	
	£14,283 11 9	
Less Balances on hand,	282 12 10	
		14,000 18 11
VIII. Contributions to New Endowments—		
(*a*) Carnegie Trust,	£2,541 16 1	
(*b*) Gift by Lord Newlands,	10,000 0 0	
(*c*) Legacy by Miss Mary Campbell,	1,000 0 0	
(*d*) Legacy by Mrs. Mackie,	1,000 0 0	
		14,541 16 1
		£106,935 15 10

EXPENDITURE.

I. University Court and Senate—		
(*a*) Secretary of University Court,	£350 0 0	
(*b*) Assistants to Secretary of Court (including outlays, £71 6s. 5d.),	259 6 5	
(*c*) Clerk of Senate, . . .	262 10 0	
(*d*) Assistants to Clerk of Senate (including incidental expenses, £110), ...	595 0 0	
		£1,466 16 5
II. General Council—		
(*a*) Registration, .	£187 6 5	
(*b*) Clerk, . .	100 0 0	
(*c*) Printing and Outlays, .	141 0 7	
		428 7 0
III. Business—		
(*a*) Factors (including outlays, £109 1s. 10d.),	£796 1 4	
(*b*) Auditors, .	31 10 0	
(*c*) Law Agents, . . .	223 9 0	
		1,051 0 4
IV. Other Expenses of Administration—		
(*a*) Printing, Stationery, and Advertising, ...	£1,362 18 2	
(*b*) Queen Margaret College, . .	183 10 3	
(*c*) Students' Representative Council,	25 0 0	
		1,571 8 5
V. Salaries		
(*a*) Principal, . . .	£1,100 0 0	
(*b*) Professors under Ordinance No 25,	24,565 0 0	
(*c*) Other Professors, ...	2,192 1 6	
(*d*) Lecturers, . .	8,129 17 7	
(*e*) Assistants and Demonstrators, .	8,301 7 3	
(*f*) Examiners (including expenses, £538 17s. 1d.), . .	2,562 12 11	
(*g*) Reports on Applications for Recognition, ...	0 0 0	
		46,851 2 3
VI. Pensions—		
Pension Fund, ...	£4,000 0 0	
Pension under Ord. No. 25, Sect. XI., 2 (*b*), ...	120 0 0	
		4,120 0 0
VII. Class Expenses, Apparatus, etc —		
(*a*) Prizes and Medals, . . .	£204 18 6	
(*b*) Lantern Slides, ...	126 0 10	
(*c*) Apparatus and Equipment, . .	363 18 4	
(*d*) Class Expenses, ...	3,924 17 11½	
		4,619 15 7½
VIII. Library, ...		2,863 16 2
IX. Museum, ...		336 0 2
Carry forward, ...		£63,608 6 4½

Brought forward,				£63,608	6	4½
X. Observatory,				340	5	2
XI. University Buildings—						
(*a*) Maintenance of Buildings, Upkeep of Grounds, Watching, Service, Cleaning, etc.,	£5,517	6	6½			
(*b*) Lighting (including Motive Power, £291 19s. 0d.),	1,056	12	7			
(*c*) Heating and Ventilating,	2,233	14	11			
(*d*) Water,	161	17	8			
(*e*) Pathological Institute at Western Infirmary,	331	19	10			
(*f*) Telephone Rentals and Operator's Wages,	107	15	11			
(*g*) Insurance,	391	15	4			
(*h*) Public Burdens, Taxes, etc. (including £21 to Glasgow Police),	1,236	19	3½			
(*i*) Taxes, Repairs, Lighting, Heating, Service, etc., at Queen Margaret College,	845	13	5			
				11,883	15	6
XII. Interest,				871	9	0
XIII. Bursaries,				212	12	3
XIV. Chapel,				103	19	9
XV. Installation of Chancellor,				111	10	4
XVI. Entertainments—						
(*a*) Graduation Conversazione,	£52	18	3			
(*b*) Commemoration Meeting,	67	10	2			
				120	8	5
XVII. Miscellaneous,				240	3	0
XVIII. Suspense Account—Sum set aside for Gymnasium,				900	11	0½
XIX. New Buildings and Equipment—						
(*a*) Natural Philosophy (including £238 2s. 9d. for equipment),	£3,182	16	8			
(*b*) Physiology, Materia Medica, and Forensic Medicine (including £1465 12s. 1d. for equipment),	10,246	0	8			
(*c*) Equipment for Chair of Geology,	402	1	7			
(*d*) Towards equipment of Psychological Laboratory,	170	0	0			
				14,000	18	11
XX. New Endowments—						
(*a*) Lectureship on Organic Chemistry,	£2,541	16	1			
(*b*) Newlands Scholarships,	10,000	0	0			
(*c*) Campbell Bursaries,	1,000	0	0			
(*d*) General Purposes of University,	1,000	0	0			
				14,541	16	1
				£106,935	15	10

CLASS FEES.

I Faculty of Arts—						
Humanity,	£1648	1	0			
Greek,	384	6	0			
English,	1324	1	0			
French,	381	6	0			
German,	224	14	0			
Italian,	5	3	0			
Hebrew,	203	3	6			
Celtic,	21	0	0			
Logic,	1344	0	0			
Moral Philosophy,	768	12	0			
Political Economy,	218	8	0			
Education,	513	19	6			
Mathematics,	1,620	3	0			
Natural Philosophy,	1541	8	0			
Chemistry,	253	1	0			
Botany,	248	17	0			
Zoology,	25	4	0			
Astronomy,	8	8	0			
Geology,	47	5	0			
History,	811	16	6			
Constitutional Law,	95	11	0			
Roman Law,	84	0	0			
Arabic,	8	8	0			
				£11,784	15	0
II. Faculty of Science—						
Political Economy,						
Astronomy,	£31	10	0			
Engineering,	1,621	17	6			
Naval Architecture,	185	17	0			
Geology,	155	8	0			
Mathematics,	614	15	6			
Natural Philosophy,	1191	15	0			
Chemistry,	962	6	6			
Botany,	159	12	0			
Zoology,	116	11	0			
Physiology,	73	10	0			
Anatomy,	38	17	0			
Mining,	67	4	0			
Public Health,	126	0	0			
Metallurgical Chemistry,	78	15	0			
Organic Chemistry,	44	2	0			
Physical Chemistry,	28	7	0			
				5,499	7	6
III. Faculty of Medicine—						
Botany,	£819	0	0			
Zoology,	853	13	0			
Physics,	522	18	0			
Carry forward,	£2195	11	0	£17,284	2	6

Brought forward,				£17,284	2	6
Faculty of Medicine—*continued*.	£					
Chemistry,	1,100	8	0			
Anatomy,	1,654	16	0			
Physiology,	940	16	0			
Materia Medica,	767	11	0			
Pathology,	909	6	0			
Forensic Medicine,	415	16	0			
Public Health Laboratory,	—					
Surgery,	870	9	0			
Clinical Surgery,	109	4	0			
Practice of Medicine,	422	2	0			
Clinical Medicine,	229	7	9			
Midwifery,	717	3	0			
Insanity,	128	2	0			
				10,460	11	9
IV. Faculty of Law—						
Law,	£336	0	0			
Conveyancing,	218	8	0			
Constitutional Law and History,	33	12	0			
Civil Law,	42	0	0			
Jurisprudence,	37	16	0			
Public International Law,	56	14	0			
International Private Law,	37	16	0			
Political Economy,	4	4	0			
Forensic Medicine,	67	4	0			
Mercantile Law,	313	19	0			
				1,147	13	0
V. Faculty of Theology—						
Divinity,	£176	8	0			
Church History,	100	16	0			
Biblical Criticism,	126	0	0			
Hebrew (see under Faculty of Arts),	—					
				403	4	0
VI. Non-qualifying Classes,				999	6	0
				£30,294	17	3
Deduct Fees returned,				3	3	0
				£30,291	14	3

XVII.—GLASGOW PROVINCIAL COMMITTEE FOR THE TRAINING OF TEACHERS.

Chairman—R. S. Allan, LL.D.
Convener of Studies Committee—Rev. John Smith, D.D.
Convener of Bursaries Committee—Professor Latta, M.A., D.Phil.
Director of Studies—D. Macleod, M.A.
Master of Method—Hugh M'Callum, M.A.
Warden of Women Students—Miss Helen Rutherfurd, M.A.

ARRANGEMENTS FOR SESSION 1909-10.

I. CONDITIONS OF ADMISSION TO TRAINING.

THE conditions of admission to full training at the University are as follows:

A. Permanent Standard of Admission.

The following classes of persons are eligible for admission:

1. Persons who have obtained the Junior Students' Certificate (Arts. 10-13).[1]

2. Persons who hold the Leaving Certificate, or who have successfully completed a course of instruction equivalent to the Leaving Certificate Curriculum (Art. 15*b*). Candidates seeking admission under this head must have undergone a course of practical training for six months in a school approved by the Department for that purpose, and must be able to produce certificates testifying to good conduct and aptitude for teaching (Arts. 11 and 12).

3. Graduates in Arts or Science, including, for the purposes of the Regulations, "Women who have been placed on the Class Lists of one or other of the Final Honours Examinations in the University of Oxford or the University of Cambridge" (Art. 15 (*c*) and footnote).

B. Temporary Provisions.

The following classes of persons may also be admitted to training in the Session 1909-10, viz.:

1. Any candidate, being not less than eighteen years of age on 1st Oct., 1909, who, prior to 1st July, 1909,

---

[1] The articles referred to are articles of the Regulations for the Training of Teachers, published by Messrs. Oliver & Boyd, price 3½d., by post 4½d.

(*a*) has passed the Preliminary Examination of any of the Scottish Universities; and

(*b*) has obtained a satisfactory report upon his or her practical skill in teaching, and, in the case of girls, in Needlework.

N.B.—"A satisfactory certificate as to health and physical fitness in a form prescribed by the Department" must be produced by every candidate (Art. 16).

II. Information regarding Fees and Bursaries or Maintenance Allowances and After Service.

1. By Article 31 Training Authorities are enjoined to charge suitable fees; but they are empowered, on good cause being shown, to remit the fee, in whole or in part, in the case of individual students. They are further empowered to make payment to individual students of such bursaries or maintenance allowances as, after due enquiry, they may deem necessary.

2. Students who pay fees in full, and receive no bursaries or maintenance allowances, will not be bound in any way as regards their future employment; but students who receive remission of fees, or bursaries or maintenance allowances come under an obligation to serve in schools eligible for grants under the Day School Code, the period of service varying according to the amount of benefit received from two to five years, or more as may be hereafter determined.

3. Students who receive remission of fees, or bursaries or maintenance allowances will be required to give adequate security for repayment, in the event of failure to give the requisite service within a specified time, of the advances made to them, or of such parts thereof as may not be cancelled by service.

4. The fee charged for instruction in the Training College subjects, in terms of Article 31, is £10 per annum. University fees, and fees for attendance at Central Institutions, must be paid by students from their own resources, or, either in part or in whole, from such bursaries or maintenance allowances as may be awarded to them. The award of a bursary or maintenance allowance carries with it remission of the fee for Training College subjects.

5. While the probationary service required under Article 49 may be given in a Secondary School, the after-service required of those who receive pecuniary assistance (whether in the shape of remission of fees or of award of bursaries or maintenance allowances) must be given in a Primary or Intermediate School, and not in a Secondary School. If the probationary service required under Article 49 is given in a primary or Intermediate School, it will count *pro tanto* for the purposes of Article 31.

III. LODGINGS AND SUPERVISION OF STUDENTS.

1. The Provincial Committee is under obligation to see that the students under its charge "are suitably lodged in approved Hostels or otherwise, and to provide for their due supervision as regards conduct." (Art. 26.)

2. The Committee may require every student who is not residing with parents or other near relatives to reside in an approved Boarding House, or in lodgings registered by the Committee, after inspection, as suitable for students (Art. 28). A list of such lodgings may be obtained on application.

IV. APPLICATION FOR ADMISSION.

Forms of application for Admission to Training and for Maintenance Allowances may be obtained by applying to the Director of Studies, The Technical College, Glasgow.

Intending Candidates should make early application. Only in exceptional circumstances *will applications received after 20th July be considered.*

XVIII.—EXTRA-ACADEMICAL TEACHING.

N.B.—Every application for recognition must be accompanied by a payment to the University Factors, Messrs. Hill & Hoggan, 194 Ingram Street, Glasgow, of a fee of £5 5s. to be placed to the credit of a fund for defraying the cost of investigation by experts of the fitness of the teacher applying, and of the accommodation, apparatus, and teaching appliances at the disposal of the teacher.

The following regulations for the recognition of Extra-Academical Teaching under Ordinances Nos. 12, 14, 23, and 134, were adopted by the University Court on 14th June, 1894, and afterwards amended in June, 1905.

IN THE CASE OF INDIVIDUAL EXTRA ACADEMICAL TEACHERS.

I. Every application shall be made to the Secretary of the University Court and shall supply the following information :

(*a*) The registrable or other qualification or qualifications of the applicant.

(*b*) A statement of his opportunities of studying the subject and the length of time devoted thereto.

(*c*) A statement of his experience in teaching the subject.

(*d*) A note of any of his published articles or works on the subject.

(*e*) The appointments which he holds as a teacher of the subject in which he requests recognition, and a statement whether the course for which recognition is sought has previously been conducted by him, and if so, for how long. If the applicant is a teacher in a Medical School, College of Science, or other similar Institution, the most recent issue of the Calendar of such School, College, or Institution, should be forwarded.

(*f*) The number of meetings to which the course extends, whether each meeting is for one hour or longer, and a statement of the proportion of the course to be devoted to lectures, practical demonstrations, examinations and tutorial work. In the case of a practical course, information should be given as to the manner of conducting it, the number of examinations, oral or written, and whether or to what extent lectures or tutorial work form part of the course. It should also be stated whether, besides the teacher for whom recognition is sought, assistants or demonstrators take part in conducting the course (whether systematic or practical), and, if so, their number, qualifications, and the extent to which they take part in conducting the course. A syllabus of the subjects treated in the course and of the books proposed for the use of students should also be sent in every case.

(*g*) The hour or hours at which the course is conducted.

(*h*) The accommodation, apparatus, and teaching appliances provided for the class.

(*i*) The teaching or examining bodies which have recognized his course.

II. In the case of an applicant conducting courses in Glasgow or its neighbourhood an inspection shall be made of his accommodation and appliances for teaching.

III. Every Extra-Academic Teacher in Glasgow whose course has been recognized under any of the Ordinances enumerated above, shall, at the commencement of each session, call the attention of his whole class to the regulations as to enrolment and payment of fee at the University by all students who desire afterwards to graduate there; he shall also call attention to the University requirements as to preliminary examination (more stringent in the case of medical students than the minimum required by the General Medical Council); and shall advise any students looking forward to a University degree to procure from the Matriculation Office a copy of the syllabus of regulations applicable to their course.

IV. Every recognized Extra-Academical Teacher shall annually within one month of the close of the session furnish the University Court with a return of

(*a*) The number of students who have attended the recognized course or courses, in such manner as to qualify *pro tanto* for graduation in a Scottish University.

(*b*) Any change that may have been made in the accommodation or appliances provided.

(*c*) A statement showing, for the year next ensuing, the number of meetings to which the course extends, whether each meeting is for one hour or longer, and the proportion of the course to be devoted to lectures, practical demonstrations, examinations, and tutorial work. In the case of a practical course, information should be given as to the manner of conducting it, the number of examinations, oral or written, and whether, or to what extent lectures or tutorial work form part of the course. It should also be stated whether, besides the recognized teacher, assistants, or demonstrators take part in conducting the course (whether systematic or practical), and if so, their number, qualifications, and the extent to which they take part in conducting the course. A syllabus of the subjects to be treated in the course, and of the books proposed for the use of students, should also be sent.

V. The certificate of attendance granted by Extra-Academical Teachers should in all cases state the number of lectures or meetings for practical instruction in the course, the number of occasions on which the student was present, the fee charged, and bear that the student has duly performed the work of the class.

VI. Every candidate not being a matriculated student attending the course of an Extra-Academical Teacher in Glasgow, recognized for the purposes of graduation in Medicine or Science, must at the commencement of each year enrol his name in a book kept at the University for that purpose, paying a fee of the same amount as the matriculation fee, and having in respect thereof a right to the use of the University Library. (Ord. No. 12, § V.; Ord. No. 14, § VIII. 5; Ord. No. 23, § VI.; Ord. No. 134, § V.)

VII. The fee for attendance for the purposes of graduation on the courses of instruction of an Extra-Academical Teacher in Glasgow shall not be less than the fee for the corresponding University Class. (Ord. No. 12, § IV. 2; Ord. No. 14, § VIII. 6; Ord. No. 23, § IV. 2; Ord. No. 134, § V. 2.)

VIII. The Court will not in any case recognize for the purposes of graduation in Medicine the course of any teacher who teaches at the same time more than one of the subjects, except where the applicant is a professor or teacher of any endowed public college or institution, who, by the terms of his appointment, is required to teach more than one of the subjects, and in that case recognition can be granted in one subject only. (Ord. No. 14, § VIII. 7.)

IX. It is a condition of every recognition granted by the Court that it can be withdrawn or suspended at any time if the Court see fit.

X. The recognition of any teacher who fails to furnish the information required in terms of Regulation IV., or a sufficient explanation relative to such failure, or who has ceased for the period of two consecutive sessions to teach the subject in which he is recognized, shall *ipso facto* terminate.

IN THE CASE OF SCHOOLS OR INSTITUTIONS.

I. Every application shall be made to the Secretary of the University Court, and shall supply the following information :—

(*a*) A statement of the number of teachers and a detailed syllabus of the curriculum courses proposed to be given, or, in the case of practical classes, information of a similar kind.

(*b*) The number and duration of lectures proposed to be given and the number of examinations, whether written or oral, deemed necessary, or in the case of a practical class, information of a similar kind. It should also be stated whether assistants or demonstrators take part in conducting the courses (whether systematic or practical).

(*c*) The hours of lectures.

(*d*) The teaching or examining bodies which have already recognized the curriculum or certificate of the school or institution making application.

(*e*) A statement as to the accommodation, apparatus, and appliances at the disposal of the teachers in the school or institution making application.

(*f*) A note of the fees proposed to be charged.

II. The Court shall, if it thinks fit, cause an inspection to be made of the accommodation, apparatus, and teaching appliances provided by the school or institution making application.

III. Every recognized school or institution shall annually within one month of the close of the session furnish the University Court with a return of

(*a*) The number of students who have attended the recognized school or institution in such manner as to qualify *pro tanto* for graduation in the University.

(*b*) Any change that may have been made in the accommodation or appliances provided.

(*c*) A statement showing, for the year next ensuing, the number of meetings to which the courses extend, whether each meeting is for one hour or longer, and the proportion of the courses to be devoted to lectures, practical demonstrations, examinations, and tutorial work. In the case of practical courses information should be given as to the manner of conducting them, the number of examinations, oral or written, and whether, or to what extent, lectures or tutorial work form part of the courses. It should also be stated whether assistants or demonstrators take part in conducting the courses (whether systematic or practical).

IV. The certificates of attendance granted by recognized schools or institutions should in all cases state the number of lectures or meetings for practical instruction in the courses, the number of occasions on which the student was present, the fees charged, and bear that the student has duly performed the work of the classes.

V. The fees for attendance for the purposes of graduation on the courses of instruction in a recognized school or institution shall not be less; than the fees for the corresponding University classes. (Ord. No. 12, § IV. 2; Ord. No. 14, § VIII. 6; Ord. No. 23, § IV. 2; Ord. No. 134. § IV. 2.)

VI. It is a condition of every recognition granted by the Court that it can be withdrawn or suspended at any time if the Court see fit.

LIST OF EXTRA-ACADEMICAL TEACHERS.

List of Extra-Academical Teachers recognized by the University Court of the University of Glasgow, for the purpose of Graduation in Medicine and Science, in terms of Ordinances of the Universities Commissioners (1858 and 1889), the names of those who are recognized for Graduation in Science being printed in *italics*.

19 April, 1876,	Dr. James Gow Black, Otago,	*Chemistry.*
,,	Miller Coughtrey, M.B., Otago,	*Anatomy.*
12 Sept., 1877,	A. M. Buchanan, M.D., Glasgow,	*Anatomy.*
21 Dec., 1880,	William Craig, M.D., Edinburgh,	*Materia Medica and Therapeutics.*
24 May, 1881,	Byrom Bramwell, M.D., Edinburgh,	*Practice of Medicine.*
22 July, 1885,	Reginald W. Phillips, B.A., B.Sc., University Coll., Bangor,	*Botany.*
4 Oct., 1887,	Claud M. Thompson, University College, Cardiff,	*Chemistry.*
,,	W. Newton Parker, University College, Cardiff,	*Zoology.*
27 Feb., 1890,	James Robertson Watson, M.A., Glasgow,	*Chemistry and Practical Chemistry.*
,,	Philip J. White, M.B., University College, Bangor,	*Zoology.*
28 April, 1892,	James Swanson, M.A., M.B., C.M., St. Mungo's Coll., Glasgow,	*Botany.*
23 Feb., 1893,	J. W. Carr, M.A., University College, Nottingham,	*Botany.*
27 April, 1893,	*G. G. Henderson, D.Sc.*, Glasgow and West of Scotland Technical College [also for Medicine],	*Chemistry.*
20 July, 1893,	J. Berry Haycraft, M.D., University College, Cardiff,	*Physiology.*
9 Nov., 1893,	F. W. N. Haultain, M.D., Edinburgh,	*Midwifery.*
,,	G. A. Gibson, M.D., Edinburgh,	*Practice of Medicine.*
,,	R. W. Philip, M.D., Edinburgh,	*Practice of Medicine.*

14 Nov., 1893,	Dawson Turner, M.D., Edinburgh,	*Physics.*
8 Feb., 1894,	J. W. B. Hodsdon, M.D., Edinbro',	*Surgery.*
14 June, 1894,	Sir George T. Beatson, K.C.B., M.D., Glasgow,	*Surgery.*
,,	Henry Alexis Thomson, M.D., Minto House, Edinburgh,	*Surgery.*
2 Aug., 1894,	George B. Todd, M.B., C.M., Anderson's College, Glasgow,	*Zoology.*
13 Dec., 1894,	*R. Stanfield, A.R.S.M., A.M. Inst. C.E.*, Heriot Watt Coll., Edin.,	*Mechanical Engineering.*
,,	*John Gibson, Ph.D.*, Heriot Watt College, Edinburgh,	*Chemistry and Chemical Laboratory.*
14 Feb., 1895,	A. H. Trow, B.Sc., University College, Cardiff,	*Botany.*
12 Dec., 1895,	Peter Bennett, Anderson's College Medical School, Glasgow,	*Physics.*
18 June, 1896,	John Edgar, M.A., B.Sc., M.B., Anderson's College Medical School, Glasgow,	*Midwifery.*
,,	*George A. Gibson, M.A., LL.D.*, Glasgow and West of Scotland Technical College,	*Mathematics.*
12 Nov., 1896,	*Francis G. Baily, M.A.*, Heriot Watt College, Edinburgh,	*Physics and Electrical Engineering.*
6 May, 1897,	Richard J. A. Berry, M.D., F.R.C.S.E., New School of Medicine, Edinburgh,	*Anatomy.*
9 June, 1898,	John Carswell, L.F.P.S.G., L.R.C.P.E., Anderson's College Medical School, Glasgow,	*Mental Diseases.*
,,	J. R. Whitaker, M.B., Surgeon's Hall, Edinburgh,	*Anatomy and Practical Anatomy.*
10 Nov., 1898,	Hugh Galt, M.B., C.M., St. Mungo's College,	*Forensic Medicine and Public Health.*
,,	Robert A. Fleming, M.D., School of Medicine, Edinburgh,	*Practice of Medicine.*
13 July, 1899,	A. L. Selby, M.A., University Coll. of South Wales, Cardiff,	*Physics.*
,,	D. R. Paterson, M.B., University Coll. of South Wales, Cardiff,	*Practical Pharmacy.*
9 Nov., 1899,	Theodore Shennan, M.D., School of Medicine, Edinburgh,	*Pathology.*
26 April, 1900,	Carstairs C. Douglas, D.Sc., M.D., Anderson's College Medical School, Glasgow,	*Medical Jurisprudence and Public Health.*
10 July, 1900,	*J. C. Beattie, D.Sc.*, South African College, Cape Town,	*Natural Philosophy.*
,,	*P. D. Hahn, Ph.D.*, South African College, Cape Town,	*Chemistry.*

14 Mar., 1901,	*John W. Paterson*, West of Scotland Agricultural College,	*Agricultural Chemistry.*
,,	*A. N. M'Alpine*, West of Scotland Agricultural College,	*Agricultural Botany.*
,,	*J. J. F. X. King*, West of Scotland Agricultural College,	*Agricultural Entomology.*
,,	*John R. M'Call*, West of Scotland Agricultural College,	*Veterinary Hygiene.*
14 Nov., 1901,	T. K. Monro, M.A., M.D., St. Mungo's College,	*Practice of Medicine.*
1 May, 1902,	Marion T. Newbigin, D.Sc., Medical College for Women, Edinburgh,	*Zoology.*
10 July, 1902,	*Harry Bamford, M.Sc.*, West of Scotland Agricultural College,	*Agricultural Engineering.*
1 Dec., 1902,	*Daniel Burns*, Glasgow and West of Scotland Technical College,	*Geology.*
18 June, 1903,	*Magnus Maclean, M.A., D.Sc.*, Glasgow and West of Scotland Technical College,	*Electrical Engineering.*
18 June, 1903,	*John G. Longbottom, A.R.C.S.*, Glasgow and West of Scotland Technical College,	*Civil and Mechanical Engineering.*
,,	Hamilton C. Marr, M.D., F.F.P.S.G., St. Mungo's College, Glasgow,	*Insanity.*
,,	Archibald A. Scot Skirving, C.M.G., M.B., M.R.C.S. (Eng.), F.R.C.S. (Edin.), 27 Nicolson Square, Edinburgh, and School of Medicine of the Royal Colleges, Edinburgh,	*Surgery.*
12 Nov., 1903,	*Gilbert Thomson, M.A., C.E.*, Glasgow and West of Scotland Technical College,	*Sanitary Engineering*
,,	*Daniel Burns*, Glasgow and West of Scotland Technical College,	*Mining.*
11 Feb., 1904,	*John H. A. M'Intyre, M.I.M.E.*, Glasgow and West of Scotland Technical College,	*Mensuration and Drawing.*
21 July, 1904,	J. C. Beattie, D.Sc., South African College, Cape Town, and Alexander Brown, B.A., B.Sc., South African College, Cape Town, conjointly,	*Physics.*
,,	H. H. W. Pearson, M.A., South African College, Cape Town,	*Botany.*

21 July, 1904,	*H. H. W. Pearson, M.A.*, South African College, Cape Town,	*Botany for First B.Sc.*
,,	G. H. Gemmell, School of Medicine of the Royal Colleges, Edinburgh,	*Practical Chemistry.*
,,	David Hepburn, M.D., University College, Cardiff,	*Anatomy and Practical Anatomy.*
,,	Robert Jardine, M.D., St. Mungo's College, Glasgow,	*Midwifery.*
9th Feb., 1905,	Alexander Bruce, M.D., Surgeon's Hall, Edinburgh,	*Practice of Medicine.*
,,	Leonard A. L. King, B.A., St. Mungo's College, Glasgow,	*Zoology.*
8 June, 1905,	*R. F. Muirhead, D.Sc.*, Western Medical School, Glasgow,	*Mathematics.*
,,	*Leonard A. L. King, B.A.*, St. Mungo's College, Glasgow,	*Zoology for First B.Sc.*
14 Dec., 1905,	David A. Farquharson, M.B., St. Mungo's College, Glasgow,	*Physiology.*
,,	A. Ogg, M.A., B.Sc., Rhodes University College, Grahamstown, Cape Colony,	*Physics.*
,,	George E. Cory, M.A., Rhodes University College, Grahamstown, Cape Colony,	*Chemistry.*
,,	S. Schönland, Ph.D., Rhodes University College, Grahamstown, Cape Colony,	*Botany.*
,,	J. E. Duerden, Rhodes University College, Grahamstown, Cape Colony,	*Zoology.*
,,	J. D. F. Gilchrist, M.A., D.Sc., South African College, Cape Town,	*Zoology.*
,,	*J. D. F. Gilchrist, M.A., D.Sc.*, South African College, Cape Town,	*Zoology for First B.Sc.*
,,	J. A. Wilkinson, M.A., Transvaal Technical Institute, Johannesburg, .	*Chemistry.*
,,	H. Lyster Jameson, M.A., D.Sc., Transvaal Technical Institute, Johannesburg,	*Zoology.*
4 Oct., 1906,	Robert Broom, M.D., D.Sc., Victoria College, Stellenbosch, South Africa,	*Zoology.*
,,	Augusta V. Duthie, M.A., Victoria College, Stellenbosch, South Africa,	*Botany.*
1 Nov., 1906,	G. Balfour Marshall, M.D., Western Medical School, Glasgow,	*Obstetrics and Gynæcology.*

13 Dec., 1906,	*R. A. Berry*, West of Scotland Agricultural College, Glasgow,	*Agricultural Chemistry.*
,,	*A. L. Mellanby, D.Sc.*, Glasgow and West of Scotland Technical College,	*Mechanical Engineering.*
14 Feb., 1907,	*John Bryce*, Burgh Surveyor, Partick,	*Mensuration and Drawing.*
11 April, 1907,	Alan W. C. Menzies, M.A., B.Sc., St. Mungo's College, Glasgow,	*Chemistry and Practical Chemistry.*
,,	Peter Paterson, M.B., St. Mungo's College, Glasgow,	*Surgery.*
4 July, 1907,	B. de St. J. Vander Riet, M.A., Ph.D., Victoria College, Stellenbosch, Cape Colony,	*Chemistry.*
,,	W. E. Malherbe, B.A., B.Sc., Victoria College, Stellenbosch, Cape Colony,	*Physics.*
,,	John M. Cowan, B.A., M.D., D.Sc., Anderson's College, Glasgow,	*Practice of Medicine.*
16 Jan., 1908,	James Battersby, F.R.C.S.(Eng.), St. Mungo's College, Glasgow.	*Anatomy.*
,,	*James Muir, D.Sc., M.A.*, Glasgow and West of Scotland Technical College.	*Natural Philosophy.*
,,	James Muir, D.Sc., M.A., Glasgow and West of Scotland Technical College,	*Physics.*
12 Nov., 1908,	George H. Edington, M.D., Anderson's College Medical School, Glasgow,	*Surgery.*
11 Feb., 1909,	Walter Colquhoun, M.A., M.B., Anderson's College Medical School, Glasgow,	*Physiology.*

And the ordinary Physicians and Surgeons of any General Hospital in the United Kingdom which accommodates not fewer than eighty patients, and possesses a distinct staff of Physicians and Surgeons. (See Ordinance No. 14, Section VII. (5).)

LIST OF INSTITUTIONS OR SCHOOLS.

List of Schools or Institutions recognized by the University Court of the University of Glasgow, for the purpose of Graduation in Medicine, Law, Science, and Theology, in terms of Ordinances of the Universities Commission (1889).

14 Nov., 1895, LONDON SCHOOL OF MEDICINE FOR WOMEN, in respect of the following courses: *Chemistry (Systematic*

	and Practical), *Anatomy* (*Systematic and Practical*), *Physiology* (*Systematic and Practical*), *Practical Pharmacy*, *Practical Pathology*, *Medical Jurisprudence and Public Health*, *Clinical Surgery*, *Clinical Medicine*, *Practical Midwifery*, *Mental Diseases*, *Out-Practice or Dispensary and Vaccination.*
23 Mar., 1896,	University of New Zealand. If a candidate for the First Professional Examination in this University has obtained a Degree in Science or in Arts in the University of New Zealand, granted after a course of study and an examination in Botany, Zoology, Physics, or Chemistry, such candidate is exempted from the examination in such subject or subjects. (Ordinance No. 54, Section IV.)
23 July, 1896,	Universities of Oxford, Cambridge, and Dublin, and the four Inns of Court, London. The above are recognized for the purposes of Graduation in Law under Ordinance No. 39 [General No. 11.—Regulations for the Degree of Bachelor of Laws (LL.B.)] and subject to Section II. thereof.
11 Mar., 1897,	Glasgow Eye Infirmary.
10 Nov., 1898,	University of Louvain. This University has been approved by the University Court as a University in which Courses for the four subjects represented in the First Science Examination may be taken and reckoned *pro tanto* under Ordinance No. 23, Section IV. (2).
13 April, 1899,	Harvard University, Boston, U.S.A. Approved under Ordinance No. 23, Section IV.
12 June, 1902,	Westminster College, Cambridge. Recognized under Ordinance No. 63, Section I.
12 Nov., 1903,	University of New Zealand. Recognized under Ordinance No. 63, Section I.
10 Nov., 1904,	Theological College of the Episcopal Church in Scotland. Recognized under Ordinance No. 63, Section I.
6 July, 1905,	Royal Institute of Public Health, London. Recognized for the purposes of Section IV., Sub-Section (1) of Ordinance No. 2 of the University Court (Degrees in Science in Public Health).
,,	Royal Army Medical College. Recognized for the same purposes as the preceding.
11 April, 1907,	Glasgow and West of Scotland Technical College, Bacteriological Laboratories. Recognized for the same purposes as the preceding.

XIX.—UNIVERSITY SOCIETIES.

GLASGOW UNIVERSITY UNION.

At a Meeting of Students and Graduates, held on the 14th day of February, 1885, it was unanimously resolved to establish a Glasgow University Union. A sum sufficient to erect a building for this purpose having been offered to the Senate by the late JOHN M'INTYRE, Esq., M.D., Odiham, Hampshire, and the Senate having accepted this gift, Articles of Constitution were drawn up by a Committee of Students and Graduates, and received the approval of the Senate, the Donor, and of the Students' Representative Council. A further sum of £12,000 was raised by the Union Bazaar of 1889, and devoted to furnishing and endowing the building. In 1893, to meet the increasing membership, the building was largely extended at a cost of £2800. A further extension at a cost of about £6000 has just been completed, the new Union being opened with fitting ceremony in October, 1908. The Union is governed by a Committee of Management which is elected annually at the General Meeting of the Members.

Objects.—The objects of the Union are to provide Students with the comforts and conveniences of a Social Club, to hold debates, and to form a centre to which the various University Societies may be affiliated. The Buildings comprise a Debating Hall, a Dining Hall, Reading and News Rooms, Billiard and Smoking Rooms, Committee Rooms, Lavatories, etc.

Membership.—The Members of the Union are Ordinary Members or Life Members.

Ordinary membership of the Union is open to all matriculated Students and all former Students of the University, and all Medical Students of Glasgow whose names are enrolled in the Extra mural Album of the University, and members of the University Court and Teaching Staff, on payment of an Annual Subscription of Ten Shillings and Sixpence. Students may join for the summer Session only, on payment of Four Shillings.

All matriculated Students and former Students of the University may, on payment of the sum of Three Pounds Three Shillings, become Life Members of the Union.

President—R. R. Archibald, M.A.

Vice-Presidents—Professor Ralph Stockman, M.D.; William Lorimer.

Hon. Secretary—W. Strelley Martin, M.A., The Union.

Hon. Treasurer—A. J. Fleming, LL.B.

Assistant Secretary and Treasurer—T. Drysdale Miller.

Librarian—Philip Figdor.

Convener of Games Committee—R. R. K. Paton.

Committee of Management—The Office bearers; [2]James MacLehose, M.A.; [2]R. M. Grant, M.A., B.L.; [2]D. H. Wilson, M.A.; [2]J. I. Greig, M.A., B.Sc., M.B., Ch.B.; [1]J. Mowat; [2]C. P. Williamson; [2]E. P. Cathcart, M.D., D.Sc.; [2]R. E. Lee, M.A.; [1]R. M. Mathams; [1]A. S. Wallace, M.A.; [1]J. B. Galbraith; [1]W. C. Macartney; [1]J. Hendry, M.A.

[1] Present Students. [2] Former Students.

Former Presidents of the Union.

1890.	John H. Harley, M.A.
1890-1.	Robert G. Bell, M.D.
1891-2.	John Paterson, M.A., M.B.
1892-3.	F. A. Macquisten, B.L.
1893-4.	Joshua Ferguson, M.A., M.B.
1894-5.	Joshua Ferguson, M.A., M.B.
1895-6.	J. A. Stokes Little, M.A.
1896-7.	W. C. Henderson, M.A., B.Sc. (resigned Oct., 1896).
1896-7.	A. M. Scott, M.A.
1897-8.	John C. Monteith, M.A.
1898-9.	William F. Smillie.
1899-1900.	George F. Buchan, M.B.
1900-1.	Ivy M'Kenzie, M.A., B.Sc., M.B.
1901-2.	Andrew F. Bell, M.B.
1902-3.	G. D. Valentine, LL.B.
1903-4.	C. M. Drew, M.A., M.B.
1904-5.	D. J. M'Leish, M.A., B.Sc., M.D. (resigned Oct., 1904).
1904-5.	J. I. Greig, M.A., B.Sc., M.B.
1905-6.	John M. Miller.
1906-7.	C. P. Williamson.
1907-8.	A. S. Wallace, M.A.
1908-9.	R. R. Archibald, M.A.

THEOLOGICAL SOCIETY.

The object of the Society is to discuss, by means of essays and debates, theological and ecclesiastical questions. The membership of the Society is open to all students attending the Divinity Hall of the University: but all matriculated Students in faculties other than the Faculty of Theology are eligible for extraordinary membership.

Office-Bearers for 1909-10.

Honorary President—The Lord Archbishop of York.

President—Charles E. Duff, M.A.

Vice-President—Thomas Smith, M.A.

Secretary—D. M'Arthur, M.A., 11 Wilson Street, Glasgow, W.

Treasurer—J. E. Davidson, M.A.

Committee.

W. Barclay, M.A.
R. J. Thomson, M.A.
A. Currie, M.A.
D. D. Robertson, M.A.

(With two students of the first year in Divinity to be elected in October.)

GLASGOW UNIVERSITY MEDICO-CHIRURGICAL SOCIETY.

(Founded 1802.)

This Society has as its principal object the prosecution of medical study by essays, debates, lantern and microscopical demonstrations, and during the summer by visits to Institutions and other places of interest to medical students.

All medical Students and medical Graduates of less than one year's standing are eligible for Ordinary Membership, on payment of the annual subscription of One Shilling and Sixpence. All who at the close of their last winter's session shall have been members for two years, may become Life Members on payment of Five Shillings.

Meetings of the Society are held in the Union on Friday evenings during the winter session.

Office-Bearers for 1909-10.

Honorary President—Professor J. Graham Kerr, M.A., F.R.S.

President—James Dunlop, M.A.

Vice-President—A. Edgar Struthers, B.Sc.

Honorary Secretary—Malcolm Manson, M.A.

Minute Secretary—A. S. Richmond.

Treasurer—Nicolas Gebbie.

Demonstrator—D. T. C. Frew.

Librarian—R. H. Deans.

Committee.

Jas. Hendry, M.A.
H. E. Whittingham.
J. F. Smith, M.A.
A. H. Garvie.
T. Martin.
Norman V. Lothian.
T. C. Houston.
J. R. C. Mackintosh.

Also two members to be appointed in November.

Books are given out at the ordinary meetings, or on written application to the Librarian.

DIALECTIC SOCIETY.

(Established 1862.)

The Society meets weekly in the Union Debating Hall during the Session for the discussion of Literary, Philosophical, and Political subjects.

All matriculated men Students are eligible for Ordinary Membership. The Annual Subscription is One Shilling and Sixpence. (Members of the Union One Shilling.)

Honorary President.

G. A. Davies, M.A., Professor of Greek.

President—T. Graham.

Vice-Presidents.

Senior—G. T. Walker. *Junior*—P. Figdor.

Secretaries.

Senior—Norman V. Lothian, The Union. *Junior*—J. Hill.

Treasurer—J. R. M'Intosh. *Macer*—N. M'Leod.

General Board.

A. R. P. Wood, M.A.
T. D. M. Latta, M.A.
R. P. Thomson, M.A.
M. W. Robieson.
W. L. Renwick.
C. Robertson.
J. Boyd.
R. Weir.

GLASGOW UNIVERSITY ORIENTAL SOCIETY.

(Instituted 1880.)

The object of the Society is the study of the languages and literatures of the East.

All Students of Oriental languages are eligible for election to the membership.

The Society meets twice a year—in the months of April and October.

Office-Bearers.

Hon. President—Rev. Emeritus Professor James Robertson, D.D., LL.D.
President—Rev. Professor Stevenson, D.Litt.
Vice-President—Robert B. Pattie, B.D.
Corresponding Secretary—Rev. James Young, B.D.
Recording Secretary—Rev. George Anderson, B.D.
Treasurer—Rev. Robert Gardner, B.D.

GLASGOW UNIVERSITY ALEXANDRIAN SOCIETY.

This Society was formed in January, 1887. It has for its chief object the discussion of questions connected with the literatures of Ancient Greece and Rome. The membership is open to Members of the University. Any distinguished Scholar or any Member of the University of five years' standing, or any person officially connected with the University, is eligible for Honorary Membership.

Office-Bearers.

Honorary Presidents.

Professor J. S. Phillimore, M.A.
Professor W. M. Dixon, Litt.D.
Professor G. A. Davies, M.A.
Emeritus-Professor Ramsay, LL.D.
Professor J. L. Morison, M.A.

President—Signor Fernando Agnoletti, D.Litt.

Vice-Presidents J. B. Hutton.
T. D. Miller.

Secretary—W. R. Cunningham, The Union.

Treasurer—J. M. Garlick.

Committee.

R. P. Arnot
H. J. W. Hetherington.
G. A. Johnston.
L. Levine.
A. M'Crackan.

And one to be elected at the beginning of Session 1909-10.

GLASGOW UNIVERSITY PHILOSOPHICAL SOCIETY.

(Instituted 1887.)

This Society was instituted for the promotion of Philosophical Discussion and Investigation. It meets on alternate Wednesday Evenings at Eight o'clock during the Winter Session, in the Union. Ordinary

Membership is open to all students who have attended or are attending Philosophical Classes in any University. The annual subscription is one shilling and sixpence.

Office-Bearers for Session 1909-10.

Honorary President—Professor A. C. Bradley, LL.D.

Honorary Vice-Presidents.

The Principal,
Professor Jones, LL.D.,
Professor Latta, D. Phil.,
Professor Dixon, Litt.D.
Ex-Officiis.

President—John W. Scott, M.A.

Vice-Presidents—Hugh A. Reyburn and A. A. Bowman, M.A.

Secretaries—J. B. Payne, B.A., and M. W. Robieson, The Union.

Members of Committee.

Dr. Watt, Norman Crockatt, G. D. Henderson, W. B. Henderson, and H. J. W. Hetherington.

GLASGOW UNIVERSITY HISTORICAL SOCIETY.

This Society has for its aim the stimulation of interest in the study of History among the students of Glasgow University. Its membership, however, is not confined to matriculated students, but extends to all members of the University and to others not connected with College, who may make their desire to join known through members of the Committee.

The annual subscription is one shilling.

Office-Bearers for Session 1909-10.

Presidents
Professor Medley.
The Rev. Professor Cooper.
Dr. W. S. M'Kechnie.

Secretary and Treasurer—

Assistant Secretary—Miss C. A. Falconer.

Committee.

The Presidents, the Secretaries, Miss S. MacLehose, Misses H. Cook, M. M. Gray, B. M'Farlane, J. Smith, M. C. Waddell; Messrs. A. Browning, A. Dingwall, W. L. Renwick.

GLASGOW UNIVERSITY ENGINEERING SOCIETY.

(Instituted 1891.)

The objects of this Society are the promotion of the study of Engineering and the Diffusion of Engineering information among the members, by the reading of papers, by discussions, by visits to Engineering works in progress, and by such other means as the Society shall approve.

The membership is open to all past and present Students of the University.

Office-Bearers for Session 1909-10.

Honorary President—Hugh Reid, Esq., M.Inst. C.E.

Honorary Vice-Presidents—
Professor Archibald Barr, D.Sc., M.Inst. C.E.
Professor J. H. Biles, LL.D., M.I.N.A.
Professor Charles Latham, M.I.M.E.

President—T. B. Morley, B.Sc.

Vice-Presidents—
Neil J. Maclean, B.Sc.
R. M. Brown, B.Sc.

Hon. Secretaries—
P. D. MacFeat.
R. W. Mitchel.

Hon. Treasurer—H. G. Copestake.

Minute Secretary—W. S. Mathie.

Committee.

Engineering.
M. Brechin.
J. W. M'Laren.
D. Thomson, B.Sc.

Naval Architecture.
G. Stevenson.
T. Graham.

Mining.
R. Thomson.

GLASGOW UNIVERSITY PHYSICAL SOCIETY.

This Society was founded in 1884 "for the discussion of scientific subjects in general, and the diffusion of scientific information among its members, by special communications, and any other means which the Society may from time to time approve."

Membership is open to all past and present students of the University, and to others whose membership the Council think would be desirable. The annual subscription is Two Shillings and Sixpence, and there is no entry-money.

Meetings are held in the Natural Philosophy Institute on alternate Thursdays at 3.45 P.M., and visits are made during the session to places of scientific interest in the neighbourhood. Tea is served prior to all ordinary meetings of the Society.

A library of books on physical science is maintained for the use of members.

The syllabus for the session is issued in the autumn, and may be obtained at the Physical Laboratory or on application to any of the Office-Bearers.

Office-Bearers for Session 1909-10:

Honorary President—Professor A. Gray, M.A., LL.D., F.R.S.

President—Alexander D. Ross, M.A., B.Sc., F.R.S.E.

Vice-President—George Green, M.A., B.Sc.

Secretary—Robert C. Gray, 1 Caledonia Place, Paisley.

Minute Secretary—Wm. Vincent Forrest.

Treasurer—John S. Anderson.

Letters should be addressed to the Secretary at the Physical Laboratory.

GLASGOW UNIVERSITY GEOLOGICAL SOCIETY.

This Society was founded in 1907 with the object of promoting the study of Geology. Meetings are held monthly during the winter session, and, in the summer, excursions are organised to places of geological interest. Membership is open to all past and present students of the University. The annual subscription is 2s. 6d.

Office-Bearers for 1909-10.

Hon. President—Professor J. W. Gregory, D.Sc., F.R.S.

Hon. Vice-Presidents—Professor Latham, M.I.M.E., Fred. Mort, Esq., M.A., B.Sc., F.G.S.

President—Robert Boyle, B.Sc.

Vice-Presidents—Miss M. M. J. Sutherland, B.Sc., J. W. Sommerville, B.Sc.

Hon. Secretary—G. W. Tyrrell, A.R.C.Sc.

Hon. Treasurer—J. M. Wordie.

Council—The Office-Bearers, together with Nath. Martin, B.Sc.; Donald Patton, M.A.; R. C. Davie, M.A.

GLASGOW UNIVERSITY CHORAL SOCIETY.

The object of this Society is to promote Choral Singing in the University and generally to foster the love of good music.

All past and present students are eligible for membership. Non-Students may be admitted by election.

Provision is made for Honorary membership on payment of an annual subscription of 10s. 6d., which will guarantee three tickets for each concert to each Honorary Member.

The Choir will meet for practice in the Moral Philosophy Class Room, University, on Friday evenings at 6 o'clock, commencing in the last week of October.

The works for study include T. F. Dunhill's "Tubal Cain"; Greig's "The Northmen" and "Song of the King"; also Part songs by Brahms and others.

Office-Bearers for 1909-10.

Honorary President—Principal Sir Donald MacAlister, K.C.B.

Conductor—A. M. Henderson, *University Organist.*

Secretary—Miss Clara E. Jeffrey.

Committee.

A. C. Strathie, *Convener.*
R. P. Thomson, M.A.
D. F. Adams.
R. G. Sharp.
A. B. Renwick.

Miss Meikle.
Miss Mackintosh.
Miss M. F. Armour, M.A.
Miss C. Jeffrey.
Miss H. Thomson.

One Honorary Member to be on Committee.

GLASGOW UNIVERSITY MISSIONARY SOCIETY.

(Instituted 1821.)

Membership—Students—chiefly Divinity Students—of the University of Glasgow.

Objects—The advancement of Christ's Kingdom, both at home and abroad, and the cultivation of a missionary spirit among the students of the University.

Sources of Income—Church Collections, Private Donations, and Class Subscriptions.

1909-10—The agencies for which appeal is to be made are:—

1. The Scottish Universities Mission in India.
2. Dennistoun Parish Church which was begun by student effort.
3. St. Serf's Church, Springburn.
4. Social Work of Church of Scotland.

Office-Bearers for 1909-10.

Honorary President—Professor W. B. Stevenson, B.D., D.Litt.

President—William Barclay, M.A.

Vice-President—D. Y. Robertson, M.A.

Superintendents of Home Missions—William M'Nicol M.A.
A. Moir.

Senior Secretary—Douglas D. Robertson, M.A., 9 Queen Mary Avenue Crosshill, Glasgow.

Junior Secretary—F. A. Steuart, M.A.

Librarian—R. J. Thomson, M.A.

Treasurers—Berry Preston, M.A.
D. M'Arthur, M.A.

Summer Committee.

The Office-bearers and Messrs. W. J. Smith, M.A., A. Templeton, B.D., and M. Lamont.

Members of Committee.

From Theology—
C. W. Farish, M.A.
A. B. Harper, M.A.
T. Smith, M.A.
C. E. Duff, M.A.
J. E. Davidson, M.A.
J. Gordon.

From Arts—
G. D. Henderson.
J. M'Dougall.
J. Kerr.

From Law—
R. P. Thomson, M.A.

From Medicine—H. C. D. Rankin, G. Walker and A. G. Henderson.

Three Representatives from First Year Theology to be appointed in November.

GLASGOW UNIVERSITY CHRISTIAN UNION.

The object of this Society is the promotion of religious life and fellowship at the University.

The Residence of the Union is at 37 Smith Street, where Bible study circles, Mission-study circles, and Prayer Meetings are held. There are also General Meetings at frequent intervals when addresses are given on various religious subjects, Missionary, Social, and General.

Office-Bearers.

Hon. President—Professor Dudley J. Medley, M.A.

Hon. Vice-President—Thomas Jones, M.A.

President—H. C. D. Rankin.

Vice-President—G. A. Johnston.

Secretary—Robert Weir, Dunbeth Manse, Coatbridge.

Treasurer—J. Kellock.

Convener of General Meetings Sub-Committee—G. D. Henderson.

Convener of Bible Study Sub-Committee—A. S. Morrison.

Convener of Missionary Sub-Committee—A. Soga.

Convener of Social Work Sub-Committee—J. W. P. Harkness.

Committee.

A. G. Henderson.
Henry Yellowlees.

GLASGOW UNIVERSITY STUDENTS' SETTLEMENT SOCIETY.

This Society was founded in 1889 with the object of carrying on social, educative, and religious work.

The Settlement, consisting of residence, club-rooms, and halls, is situated at 10 Possil Road, Garscube Cross. The work takes various forms, including social clubs, Sunday meetings, a "Poor Man's Lawyer," a Medical Dispensary, and Savings Bank. In the residence there is accommodation for fifteen students, and those who desire to enter into residence should communicate before the beginning of the session with the Warden or Secretary.

Office-Bearers.

President and Warden—James Cunnison, M.A.

Secretary—John S. Boyd, M.A., 10 Possil Road, Glasgow.

Sub-Warden—Councillor J. W. Pratt.

General Committee.

John W. Scott, M.A.
Ian D. Neilson, M.A.
Thomas Jones, M.A.
William Boyd, M.A., B.Sc.

Finance Committee.

Prof. Henry Jones, LL.D.
Rev. D. Kirkwood, B.D.
R. Harvie Pirie, LL.B.
David Yellowlees, M.D., LL.D.
John S. Boyd, M.A.

GLASGOW UNIVERSITY TEMPERANCE SOCIETY.

The object of this Society is to unite those students in the University who are interested in the cause of Temperance and are anxious to work for its advance. This work it seeks to accomplish among the students by means of At Homes, Lectures, etc., while, outside the University, it carries on successful Temperance Mission Work by Concerts at the Students' Settlement, and by Children's Play Evenings at Oakbank Public School.

Office-Bearers for 1908-9.

Honorary President—Professor Smart, LL.D., D.Phil.

Honorary Vice-Presidents.

Prof. Geo. A. Gibson, LL.D.
A. Cameron Corbett, M.P.
James Carslaw, M.A., M.B.
Robert D. Bell, M.A., M.B.
Miss Mackie, M.A.

President—W. A. MacLean, M.A.

Vice-Presidents—Miss J. C. MacNeilage, James Cairns.

Secretary—P. C. Millar, Clarkston Schoolhouse, Airdrie.

Treasurer—A. C. Strathie, 8 Bowmont Terrace, Hillhead.

Committee.

Arts—
- G. A. Harvie.
- T. D. Millar.
- L. Levine.
- K. B. Becker, M.A.
- T. Rodie.

Science—
- M. MacGregor, M.A., B.Sc.

Medicine—
- John Mowat.
- O. H. Mavor.
- W. Connor.

From Queen Margaret College—Miss Robertson, Miss Macintosh, Miss Martin, Miss Mowat, Miss Allison, and Miss Weir.

GLASGOW UNIVERSITY '88 MEDICAL CLUB.

The purpose of this Club is to encourage social intercourse among those who studied Medicine at Glasgow University in the years 1884-1888. A Triennial Dinner is held, and communications are addressed at that time to the Members of the Club in all parts of the world.

Office-Bearers for 1908-1911.

Chairman—H. L. G. Leask, M.D., C.M.

Secretary—T. K. Monro, M.A., M.D., 12 Somerset Place, Glasgow.

Committee.

John Adams, M.B., C.M.
T. C. Barras, M.B., C.M.
J. P. Boyd, M.B., C.M.
R. M. Buchanan, M.B., C.M.
Andrew Davidson, M.A., M.D.
John F. Fergus, M.A., M.D.
A. Brown Kelly, D.Sc., M.D.
R. B. Lothian, M.B., C.M.
J. Livingston Loudon, M.D., C.M.
L. R. Oswald, M.B., C.M.
C. E. Robertson, M.D., C.M.
John Rowan, M.B., C.M.
J. Turnbull Smith, M.B., C.M.
John Wright, M.B., C.M.

GLASGOW UNIVERSITY '93 CLUB.

The object of the Club is to promote intercourse among the Members by means of at least one annual reunion which shall be held as far as possible on the Friday before Christmas. The Membership is limited to students of the University of the session 1892-93.

Office-Bearers for 1909.

President—J. W. Peck, M.A.

Vice-Presidents—{ W. King Gillies, M.A.
J. J. Bell.

Secretary and Treasurer—Robert W. M'Clure, B.L.,
136 Wellington Street, Glasgow.

Committee.

J. Roy Tannahill, M.B., Ch.B.
William Scott, M.A.
John Patrick, M.A., M.B., C.M.
W. Adam Burns, M.B., Ch.B.
A. H. Charteris, LL.B.
Robert Grieve, M.A., M.B., C.M.
Fred Watson, M.A., B.Sc.
A. J. Fleming, LL.B.
Rev. Thomas Cameron.

GLASGOW UNIVERSITY '99 CLUB.

As the "Constitution" of the above Club indicates, its function or office is "to promote social unity among its members by forming new friendships, or by perpetuating those formed during College career." Matriculated students of Session '98-'99 are eligible for membership.

Office-Bearers 1909-1910.

Honorary Presidents—Professor Jones, Professor Dixon.

President—Ronald Lean.

Vice-President—James Scrymgeour, M.A., B.L.

Secretary and Treasurer—

N. Carrick Anderson, LL.B., 226 St. Vincent Street, Glasgow.

Committee—

W. Christie Cowan, B.L.; Dougald B. M'Quistan, M.A., B.Sc.; and Rev. George Galbraith, M.A.

GLASGOW UNIVERSITY TWENTIETH CENTURY (ARTS) CLUB.

Membership of this Club is limited to (*a*) Students of the Moral Philosophy and English Literature Classes during the session 1900-1901, (*b*) Graduates in Arts of the year 1901, (*c*) elected Members.

The object of the Club is to encourage and perpetuate by social intercourse friendships formed during the College career, and to keep Members in touch with their Alma Mater. The Club at present consists of 128 Members, and there is at least one annual meeting.

The Office-Bearers for Session 1909-1910 *are* :

Honorary Presidents—Rev. Professor Cooper, D.D., D.Litt.
Professor Jack, LL.D., D.Sc.

President—T. Graham Robertson, LL.B.

Vice-Presidents—Rev. Leyton P. Richards, M.A.
David Ross, Junr.

Secretary and Treasurer—R. Ralston Ness, LL.B.,
100 West Regent Street, Glasgow.

Committee.

Rev. J. M. Fleck, B.D.
Rev. J. M‘F. Hamilton, B.D.
Walter Henderson, LL.B.

GLASGOW UNIVERSITY—NEW CENTURY LAW CLUB.

The object of the Club is to promote friendly intercourse among the Students of Law, by holding at least two social functions in the year.

All Students attending any of the Law Classes in the Glasgow University during the Sessions of 1900 to 1901, and 1901 to 1902, are eligible for Membership on payment of the annual subscription of One Shilling.

Office-Bearers.

Honorary Presidents.

Charles Scott Dickson, K.C.
John Boyd, Advocate, Sheriff-Substitute for Lanarkshire.
Professor William M. Gloag, K.C., B.A., Advocate, } *ex officiis.*
Professor James Moir, LL.D., }

President—George D. Valentine, LL.B., Advocate.

Vice-Presidents—James Auld.
Weir Grieve, M.A.

Secretary and Treasurer—David Ross, Jr.,
2 Carlton Terrace, Kelvinside, North, Glasgow.

Committee.

Wm. Boyd Berry, LL.B.
Wm. E. Cameron, LL.B.
John A. Gulliland.
Alexander G. Kemp.
Wylie R. M‘Intyre.
Ed. Rosslyn Mitchell, LL.B.
George J. Sprenll, LL.B.
David Wilson.

GLASGOW UNIVERSITY OSSIANIC SOCIETY.

(Instituted 1828.)

The object of the Society is the discussion of subjects bearing on the language, literature, and customs of the Highlands. It meets in the Union on Friday evenings at 7.30 during the winter session. At two at least of the meetings in each session the proceedings are conducted entirely in Gaelic. Membership is open to all students, both men and women, interested in the Highlands. The Committee cordially invite all Highland students to the opening meeting in November.

Office-Bearers for Session 1909-10.

Honorary President—Professor Henry Jones.

President—Alexander Macdonald.

Vice-Presidents—N. D. Mackinnon and F. Macrae.

Secretaries { Malcolm Laing, 1 West End Park Street, W,
Miss Bisset, 134 Balgray Hill, Springburn.

Treasurer—M. Macleod.

Bard—W. S. Buchan.

Committee—The Office-Bearers and Misses Reevie, M. Grant, Maclaine, and Mr. W. Conley.

THE CHURCH OF SCOTLAND UNDERGRADUATE SOCIETY.

The Society meets every Monday at 7.30 p.m. in the Union for the discussion of literary, social, and religious topics, and for the promotion of social intercourse among its members.

Membership is not restricted to students of the Faculty of Divinity—undergraduate students of *all* Faculties who are connected with the Church of Scotland are eligible for membership. An undergraduate shall mean a student in any Faculty who has not graduated in that Faculty.

The annual subscription is one shilling for Union members and one shilling and sixpence for non-Union members.

Office-Bearers for 1909-10.

Honorary President—Rev. George Henderson, M.A., B.Litt., Ph.D.

President—A. Macdonald, M.A.

Vice-President—J. E. Davidson, M.A.

Secretary—T. M'Aughtrie, 11 Wilson Street, Hillhead.

Treasurer—D. C. Watson.

Committee.

Messrs W. Macmillan, W. S. Buchan, J. M. Garlick, J. Kerr, with one student in the Faculty of Arts and two from the other Faculties to be elected in October.

GLASGOW UNIVERSITY UNITED FREE CHURCH STUDENTS' SOCIETY.

(Instituted 1845.)

Honorary President—Rev. David Smith, D.D., Blairgowrie.
President—Samuel Macnab, M.A.
Vice-Presidents—Samuel W. Wilson, John Paterson.
Secretary—Ian D. Macgregor, 229 Byres Road, Partick.
Assistant Secretary—Jessie M'Dowall.
Treasurer—William Smart.
Editor of Magazine—Archibald Chisholm.

Committee.

Annie M'Crone, Peter Revie.
With one lady and gentleman to be elected from first year students in October.

This Society meets every Saturday at 10 a.m. in the Union. It is one of the oldest in connection with the University, having attained its Diamond Jubilee.

The objects of the Society are the promotion of social intercourse and the furtherance of moral and intellectual culture among its members.

All Students of either sex attending the University in any Faculty, who are connected with the United Free Church, are eligible for membership by the payment of One Shilling annually. Students not connected with the above Church may become Associates.

GLASGOW UNIVERSITY UNITED FREE CHURCH STUDENTS' SOCIAL UNION.

This Union was instituted in 1907, and is conducted by a Committee elected from Queen Margaret College, Gilmorehill, and the office-bearers of the U.F. Church Students' Literary Society.

The object of the Union is to promote social intercourse among students connected with the United Free Church, and to afford strangers an opportunity of making friends in College.

To attain this end it is proposed to hold four "At Homes" during each session—two before and two after Christmas.

There is no subscription, the cost being defrayed by collection at each meeting.

President—Rev. R. A. Lendrum, M.A., 28 Napiershall Street.
Junior President—Samuel Macnab, M.A.
Joint Secretaries—Miss Janette Marshall, Grasmere, Motherwell, and W. D. M. Williamson, 91 North Hanover Street.

Committee.

Miss J. M'Dowall.
,, C. Smith.
,, E. W. M'Ewing.
,, E. M. Mackinlay.
,, Mary Alexander.

John Baird.
Robert Lamb.
John Paterson.
Ian D. M'Gregor.
J. Revie.
William Smart.
Archibald Chisholm.

With power to add to their number.

GLASGOW UNIVERSITY ATHLETIC CLUB.

Office-Bearers for 1909-10.

Honorary President—Professor Medley, M.A.

Hon. Vice-Presidents—Professors Bower, Ramsay, and Stockman, Dr. M'Vail, Dr. John F. Fergus, Dr. W. H. Lang, Mr. Allan F. Baird, Mr. William Lorimer, and Sir William Bilsland, Bart.

President—G. S. Milne.

Hon. Treasurer—Dr. E. P. Cathcart.

Hon. Secretary—G. A. Peck, Newington, Jordanhill.

Committees of Sections—

Rugby Football—G. S. Milne (Captain), H. Snadden (Vice-Captain), D. Wilson, J. A. Burton, with J. M. Clark and H. C. D. Rankin (Joint Secretaries).

Fives—H. G. Robinson, (Captain), Dr. G. H. Wilson, M. J. Lorente-Martinez, F. Murchie, J. W. M'Nee, and W. A. Sewell (Secy.).

Golf—Professor Gloag (Captain), D. C. Macdonald, R. Sweet, Wm. George Clark, J. B. Galbraith, Dr. George H. Clark and H. G. Robinson (Joint-Secretaries).

Hockey—A. B. Harper (Captain), J. H. Dible, G. Taylor (Secy.), and two others.

From Q.M. College—Misses J. Woods, M. Stewart, E. M'Ara, and M. Millen (Secy.).

Cricket—G. C. Griffiths (Captain), H. C. D. Rankin, J. W. M'Nee, A. Wilson, J. B. Galbraith, and W. Cullen (Secy.).

Sports—Dr. W. H. Lang, W. A. Sewell, G. A. Peck, and H. C. D. Rankin (Secy.).

Tennis—H. C. D. Rankin, K. B. Becker, H. T. Martin, T. D. Miller, and W. A. Wilson (Secy.).

From Q.M. College—Miss W. S. Bain, Miss M. Ramsay, Miss M. Millen, and Miss K. M. D. Mollison.

Executive Committee.

The Officials, Secretaries of Sections, with G. M. S. Sichel and H. C. D. Rankin.

The object of the Club is the promotion of all forms of Athletic exercise. The Membership is confined to present and past Students of the University.

Subscriptions: Athletic Club, Two Shillings and Sixpence, and in addition as follows: Rugby Football, Ten Shillings; Fives Club, Three Shillings; Golf Club, Four Shillings and Sixpence; Cricket, Five Shillings; Hockey, Ten Shillings: Tennis, Ten Shillings.

Inclusive Subscription, One Guinea.

GLASGOW UNIVERSITY RIFLE CLUB.

President—Principal Sir Donald MacAlister, K.C.B., M.A., M.D., D.C.L., LL.D.

Vice-Presidents—Sir John Stirling Maxwell, Bart., LL.D., Professors Bower and Medley, and Colonel Reid, LL.D.

Team Captain—F. W. Heys (Capt., 3rd Renfrew).

Vice-Captain—Capt. C. D. Barker (1st L.R.V.).

Secretary and Treasurer—Lieut. J. L. Scott, The Union.

Students' Convener—Lieut. J. L. Scott.

Committee—William Nelson (Major, 1st L.R.V.), Messrs. J. M. Martin, R. B. Ryall, A. Stewart, and W. S. Martin.

Its objects shall be to promote rifle shooting among students and ex-students of Glasgow University, and to provide the means of having Glasgow University well represented, by a team consisting of five students and five ex-students, in the annual match for the Inter-University Trophy.

Edinburgh University won the Trophy last year with a total of 892 points, Glasgow being second with 876 points. Aberdeen and St. Andrews did not compete. Glasgow was represented by the following team:

Ex-students—Messrs. Heys, Barker, M'Phie, Darling, and Wallace.

Students—Messrs. Niven, M'Taggart, Murray, Martin, and Scott.

All students and ex-students of Glasgow University shall be eligible as Patrons and Ordinary Members. All persons officially connected with the University shall be eligible as Patrons. Both classes of Members may take part in the competitions.

All persons, eligible as above, subscribing 10s. or upwards annually, shall be *ipso facto* Patrons. The subscription for Ordinary Members shall be 5s. for ex-students, and 2s. 6d. for present students, all payable by 1st March annually. These annual subscriptions may be commuted by a present payment of £3 3s., entitling the person paying to become a Life Patron.

GLASGOW UNIVERSITY CLUB, LONDON.

The objects of the Club are to maintain good fellowship among its members and to promote the interests of the University of Glasgow and of higher education in connection therewith.

Graduates, and all who are or have been students of the University of Glasgow, or officially connected with it, are eligible for membership.

Office-Bearers for 1909-1910.

President—

The Right Honourable Lord Lister, O.M., F.R.S., LL.D.

Vice-Presidents—

Professor A. C. Bradley, M.A., LL.D.
Sir Henry Craik, K.C.B., LL.D., M.P.
Sir William Taylor, K.C.B., LL.D.
Principal Sir Donald MacAlister, K.C.B., M.D., D.C.L., LL.D.
C. O. Hawthorne, M.D., M.R.C.P.
The Right Hon. Chas. Scott Dickson, K.C., M.P.
The Right Hon. Alex. Ure, K.C., M.P.
Guthrie Rankin, M.D., M.R.C.P.

Council—

John Buchanan, M.D.
J. M. Dodds, C.B., M.A.
And. Wylie, M.D.
Alex. Macphail, M.B.
Dan M'Kenzie, M.D.
Geo. J. Spreull, M.A., LL.B.
J. Corbet Fletcher, M.D.
J. H. T. Tudsbery, D.Sc.
Rev. J. Cunningham, M.A.
Professor J. B. Henderson, D.Sc.
Professor W. P. Ker, M.A.
P. Caldwell Smith, M.A., M.D.

Trustees—

Robt. Gourlay, LL.D.
D. S. Roxburgh, M.B.

Honorary Treasurer—W. Walton Don, M.D., 200 Sutherland Avenue, W.

Honorary Secretaries—

William Craig Henderson, M.A., D.Sc., 2 Paper Buildings, Temple, E.C.

D. S. Roxburgh, M.B., 4 Bryanston Street, Portman Square, W.

THE NORTH OF ENGLAND GLASGOW UNIVERSITY CLUB.

Office-Bearers for 1908-9.

President—

Rev. W. A. M'Gonigle, M.A., B.D.

Vice-Presidents—

Jas. Drummond, M.D.
David W. Inglis, M.A., M.D.
Frank Russell, M.B., J.P.
Hugh Dickie, M.A., M.D.

Council—

Sir Thomas Oliver, M.D., LL.D.
Jas. Thomson, M.A.
J. Johnstone Weir, M.B., C.M.
Rev. Wm. Stuart, M.A., B.D.
J. J. Campbell, M.D.
Robert Forsyth, M.B., C.M.
Jas. Chalmers, M.B., C.M.
N. Burnett, M.D., F.R.C.S.E.
R. Gordon Bell, M.D., J.P.
Jas. D. Farquharson, M.B., C.M.
John Charles, M.D.
D. McLaren, M.A.
T. Lyle, M.D.
W. Grove, M.B., C.M.
Rev. J. N. Milne, M.A.
N. Maclay, M.B., C.M.
A. Livingstone, M.B., C.M.

Honorary Treasurer—
Jas. Hudson, M.D., 42 Crossley Terrace, Newcastle-on-Tyne.

Honorary Secretary—J. Templeton Dunlop, M.B., C.M.,
24 Kingsley Terrace, Newcastle-on-Tyne.

OFFICERS' TRAINING CORPS.

The Glasgow University Contingent of the Senior Division of the Officers' Training Corps began its work in February, 1909. The object of the O.T.C. is to enable its members to qualify for commissions in the Special Reserve of Officers or in the Territorial Force. So far permission has been obtained from the Army Council for the formation of two Infantry Companies. At present these are both full. It is hoped that, before long, opportunity may be given for training in other branches of Military Service. Although the greater number of the members consists of University students, gentlemen who are not students of the University are admitted to membership of the corps under such conditions as may be laid down from time to time by the Military Committee.

The affairs, other than military, of the contingent are managed by the Military Committee of the University. This Committee is composed as follows:

From the University Court—The Principal, Professor Gray, Dr. J. Hutchison.

From the Senate—Professors Medley (Convener and Treasurer), Latta, and Graham Kerr.

Co-opted Military Members—Colonel Patrick Hendry, Lieut.-Col. F. L. Morrison, M.A., LL.B., together with the Adjutant and Officers of the Corps.

The Officers of the Corps are as follows:

Captain W. G. Macalister, M.A., LL.B., 5th Bn. Scottish Rifles, Lieut. W. G. Agar, M.A., D.Sc. (unattached), Lieut. K. A. Brown, 5th Bn. Scottish Rifles.

Attached for Duty—Lieut. G. J. Aitken, M.A., 6th Bn. H.L.I.

Adjutant—Captain A. N. E. Browne, Highland Light Infantry.

Hon. Chaplain—The Rev. Prof. Cooper, D.D., Lit.Doc.

Application for admission should be made at the Orderly Room, in the new Chemistry Buildings at the University, on any week day except Saturday, during the session, between 10 A.M. and 12 noon, or by letter to the Adjutant at the University.

Erratum.—To the list of Second Class Certificates in Chemistry at the top of page 550 should have been added the name of James G. Docherty.

INDEX.

NOTE.—Bursaries, Scholarships (including Exhibitions and Fellowships), and Prizes will be found grouped under these headings respectively.

Academical Year, 212
Agricultural Botany, Examination Questions in, 720
Agricultural Chemistry, Examination Questions in, 719
Agricultural Engineering, Examination Questions in, 721
Agricultural Entomology, Examination Questions in, 720
Agriculture—*see Degrees in Science*
——, Examination Questions in, 718
Anatomy, Course in, 115
——, Applied, 117, 545
——, Class Certificates of Merit, 541, 563
——, B.Sc. Degree Subjects, 255
——, Examination Questions in, 740
Apologetics, Examination Questions in, 757
——, Degree Subjects, 311, 313
rabic Language and Literature, Course in, 152
——, Class Prize List, 534
——, Degree Subjects, 244
——, Examination Questions in, 592
rchitecture, Naval, including Marine Engineering—*see Naval Architecture*
rnott and Thomson Demonstratorship, 45, 157
ts, Faculty of, 43, 60, 71, 167, 342, 464, 480, 551, 564, 567, 633
——, Degree in—*see Degrees*
——, Masters of, 1908-1909, 524
——, Preliminary Examinations in, 209, 212, 467

Assessors, 19, 30
Assistants, University, 23, 45
Astronomy, Course in, 94
——, Degree Subjects, 238, 255
——, Examination Questions in, 682
——, Class Prize List, 541

Bachelor of Surgery, 285, 289
Bachelors of Divinity, 1908-1909, 518
Bachelors of Laws, 1908-1909, 519
—— of Law, 1908-1909, 519
—— of Medicine, 1908-1909, 521
—— of Science, 1908-1909, 523
—— of Surgery, 1908-1909, 521
Bacteriology, 121, 125, 126, 722
Baxter Demonstratorship in Geology, 24, 45, 160
Biblical Criticism—*see Divinity and Biblical Criticism*
Biological Station—*see Millport*
Blackstone Medals, 491, 559, 560
Boards of Studies, 22, 44, 226, 251, 290
Botanic Garden, 207
Botany, Course in, 110
——, Class Certificates of Merit, 547
——, B.Sc. Degree Subjects, 257
——, M.A., Degree Subjects, 259
——, Examination Questions in, 631, 692, 737
——, Vacation Exercises, 769
British History, Course in, 93
——, Examination Questions in, 672

Bursaries—
Regulations, 337–417
Adam, James, 345
Adam, John, 345, 476
Adamson, 345, 478
Agricultural College, 346, 473
Ardkinglass, 346
Armagh, 346
Arthur, 347
Auld, 478
Ayrshire Society, 347
Barbour Kilbarchan, 348, 466
Bell, 348
Biggart Memorial, 348, 466
Black, 349, 476
Blackquarry School, 349, 466
Boyd and Sanders, 350
Boyd and Wilson, 350
Brand, 351, 466
Brisbane, 351
Brown—*see Crawfurd*
Brown or Ettles, 351
Brown, Ebenezer, 352
Browne (Ayrshire), 352
Brown-Paton, 352, 466
Buchanan, 353
Buchanan (Bellfield), 353
Campbell, 353, 466
Clark, John (Mile-end), 354, 445, 466
Cowan, 355, 466
Craig, Archibald, 356
Craig, 356
Crawfurd and Brown, 356
Cunninghame, Andrew, 357, 476
Cuthbertson, Donald, 357, 473
Davidson, 358, 466
Denny, 358, 466
Dumfriesshire Society, 359
Duncan's Bute, 359, 466
Dundonald, 360, 478
Ewing, James, 360, 466
Ferguson, James, 361, 469
Ferguson, John, 362, 477
Forfar, 363, 465
Forrest, 363, 466
Forrester, 364, 467
Foundation, 364, 465
Franco-Scottish Society, 365
Fullarton of Overton, 365, 467
Gardiner, 366, 465, 474
Gartmore, 367, 466
General Council, 367, 465
Gibson, John, 368
Gibson, Dr. Thomas, 368
Gilchrist—*see Howison*
Gilhagie and Struthers, 369, 478
Glasgow City Educational Endowments, 369, 467
Grant, George, 370, 466
Grant, George, Junior, 370
Hamilton, 371, 478
Hamilton Educational Trust, 371, 467
Hannay, 372, 467
Hart, 372
Hastie, 373, 476

Bursaries—
Highland Society, 374, 467, 474
Hill, 374
Howison and Gilchrist, 375
Hutchesons' Educational Trust, 375, 477
Hutcheson, Thomas, 376
Hyndford and Ross, 376
Jaffrey, John Ferguson, 377, 469
Kerr, Malcolm, 377
King William's, 415, 466
Kintyre (Ker), 378
Kintyre (Love), 378
Laing, Alexander, 378
Laing, James, 379, 467
Lamb, 379
Lanfine, 379, 469
Leadbetter, 381
Leighton, 381
Leyden, John, 382
Lochhead, James, 382, 467
Lochhead and Mitchell, 382
Logan, 383, 474
Lorimer, 383, 468, 469, 473, 474, 476
Lumsden, 385
Lusk, 385
Macarthur, 385
M'Crie, 386, 467
M'Culloch, James Melville, 386
Macdonald, 387, 469
MacDougall, 387
M'Ewen, Malcolm, 388, 466, 473
Macfarlane, James, 388
Macfarlane, John, 389
Macfarlane, Robert, 389, 476
MacGrouther, 390, 465
M'Kechnie, 390
Mackintosh, 391, 474
M'Kissack, 391
Maclean Trust, 391
Maitland Club, 392
Manderson, 392, 467
Marshall, 392
Marshall Trust, 393, 467
Meiklejohn, William, 394
Menzies, 394
Merchants' House, 395, 475
Metcalfe, 395, 473
Monteith, 396, 469
Monteith, John, 396, 475
Morgan, 397
Muir, 397, 469, 473, 476, 554
Muir Divinity, 399, 476
Notman, 400, 476
Oliphant, John, 400, 473, 474
Park General Council, 367, 468
Paterson, James (Baptist), 401, 468
Paterson, James, 401, 468
Paterson, Jas. Alexander, 402, 468, 474
Patrick, 403, 468
Pender Memorial, 404
Perthshire Society, 404, 468
Pollock, 404, 468
Pratt, 405, 468
Rainy, 406, 474
Ramsay-Walker, 406, 468

Bursaries—
    Ross—*see Hyndford*
    Ross, John, Junior, 407
    Sanders—*see Boyd & Sanders*
    Scott, 407, 466
    Sharp, 478
    Shearer, 408
    Shipwrights' Company, 408
    Simson, 408
    Smith, 409
    Stevenson of Dalry, 409, 468
    Stewart, A. & B., 409
    Stewart, 410
    Stillie, 411
    Strang, 411, 473
    Struthers—*see Gilhagie*
    Taylor, 412, 466
    Thomson, James, Philosophical, 412
    Walkinshaw-Young, 413
    Walton, 413
    Weir, Andrew, 414, 475
    Whyte, William, 414, 468
    Williams, 415, 478
    Wilsone—*see Boyd*
    Young, George, 416, 473
    Young's Fund (Major), 417
Bursaries, Competition, 1909-1910, 464
Bursaries, Competition, Examination Questions for 1908, 567
Bursaries, Competition, List of distinguished Competitors in 1908, 530
Bursaries, Patronage, 478
Bursaries for Women, 341
Bursars, Class attendance of, 341, 342

Caird (Edward) Lectureship, 84
Calendar, University, 9—18
Carnegie Fellowships, 185
Carnegie Scholarships, 181
—— Grants in Aid of Research, 188
—— Trust, 28, 175
—— —— Payment of Class Fees, 179
Celtic, Course in, 80
——, Degree Subjects, 236, 244
——, Prize List, 518
——, Examination Questions in, 562, 607
——, Group of, 224
Certificate of Proficiency in Arts, 225
—— —— Engineering, 266
Chaldee—*see Hebrew*
Chancellor, 19, 55
Chapel, 52
Chemistry, Course in, 112
——, Class Certificates of Merit, 549, 564
——, B.Sc. Degree Subjects, 255
——, M.A. Degree Subjects, 239
Chemistry, Examination Questions in, 630, 686, 739
Chemistry, Metallurgical—*see Metallurgical Chemistry*
Chemistry, Organic—*see Organic Chemistry*
Chemistry, Physical—*see Physical Chemistry*
Chemistry, Physiological—*see Physiological Chemistry*
Children, Diseases of, 153, 168
Church History—*see Ecclesiastical History*
Civil Engineering and Mechanics, Course in, 101
——, Class Prize List, 531
Civil Law—*see Law, Civil*
Civil Service, Training for, [illegible]
Class Prizes, 532
Classes, Programme of, 1909-10, 60, 167
Classes, Separate Faculties and, 60, 71
Classics, Group of, 224, 241, 633
Clinical Medicine, 128
——, Certificates of Merit, 540
Clinical Surgery, 129
——, Certificates of Merit, 538, 539
Cognate Subjects (Arts), 221
—— —— (Science), 252, 253
[illegible]
Constitutional Law—*see Law*
Conveyancing, Course in, 157
——, Degree Subjects, 306
——, Class Prize List, [illegible]
——, Examination Questions in, 746
Council, General, 46
Court, University, 19, 29
Curriculum in Arts, 222

Dean of Faculties, 19, 37
Deans of the Faculties, 20, 44
Degree and Prize List, 1908-1909, 518
Degrees Conferred, 1908-1909, 518—528
——, Examination Questions for, 596—700
Degrees in Arts (M.A.), *Regulations*, 212, 220
—— in Arts, Subjects of Examination for, 229—245
—— in Arts, Table of Examinations for M.A., 246—249
Degrees in Divinity (B.D.), *Regulations*, 309
——, Table of Examinations for B.D., 314
——, (D.D.), *Regulations*, 315
—— in Law (LL.B. and B.L.), *Regulations*, 303
—— ——, Table of Examinations for, 308

Degrees in Law (LL.D.), *Regulations*, 315
Degrees in Medicine and Surgery, *Regulations*, 284
—— ——, Table of Examinations for, 302
—— in Science (B.Sc.), *Regulations*, 250, 255, 259, 267, 272
—— —— (D.Sc.), *Regulations*, 254, 264, 274, 276
—— ——, Tables of Examinations for B.Sc., Pure Science, 258
—— —— —— Engineering, 265
—— —— —— Agriculture, 271
—— —— —— Public Health, 275
Degrees, Examiners for, 25, 46, 211, 212, 270, 274, 284, 300, 306, 309
Degrees, Higher, 280
——, Honorary, 315
——, ——, Conferred, 1908-1909, 518
Demonstrators, 23, 45
Demonstratorships, 157
Departments of Study in Arts, 71, 222
Diploma in Education, 279, 528, 725
Distinctions in Medicine, 300, 508, 516, 528
Divinity, Course in, 149
—— Class Prize List, 532
——, Degree Subjects, 311, 313
——, Examination Questions in, 758
——, Degrees in—*see Degrees*
——, Faculty of—*see Theology*
Divinity and Biblical Criticism. Course in, 156
—— Class Prize List, 533
——, Degree Subjects, 310, 312, 313
——, Examination Questions in, 756, 759, 760
Divinity Hall, Course of Attendance at, 144
Dixon—*see Mining*
Doctors of Divinity, 1908-1909, 518
—— Laws, 1908-1909, 518
—— Letters, 1908-1909, 523
—— Medicine, 1908-1909, 519
—— Science, 1908-1909, 522
Drawing, Examination Questions in, 703
Dress, Academic, 51, 316
Dynamics, Examination Questions in, 594

Ear, Diseases of the, 65, 66, 131, 542
Ecclesiastical History, Course in, 153
—— Class Prize List, 534
Ecclesiastical History—*Cont.*
——, Degree Subjects, 311, 313
——, Examination Questions in, 759
Economics, Group of, 224, 244
Education, Course in, 86
——, Degree Subjects, 238
—— Class Prize List, 558
——, Examination Questions in, 616
——, Diploma in—*see Diploma*
Electrical Engineering, Course in, 104
—— Class Prize List, 553
——, Examination Questions in, 706
Electricity, Pure and Applied, Course in, 90
——, ——, Examination Questions in, 714
Elocution, Teachers of, 148
Embryology, 116, 545
Engineering Science, Certificates in, 266, 524
Engineering, Degrees in, 259
Engineering, Naval Architecture and Marine—*see Naval Architecture*
Engineering, Examination Questions in, 697
English Language and Literature, Course in, 75, 169
—— Class Prize Lists, 560, 565
——, Group of, 224, 242, 659
——, Degree Subjects, 231, 242
English, Examination Questions in, 567, 600, 658, 730
Evidence and Procedure, 144
Examinations in Arts and Science, Preliminary, 209, 212, 217, 250, 259, 267, 276
—— in Medicine, Preliminary, 209, 217, 285,
—— for Degrees, 220, 223, 229, 241, 251, 252, 255, 262, 263, 270, 271, 273, 275, 278, 295, 297, 299, 302, 304, 306, 308, 309, 310
Examination Questions for Bursary and Preliminary Examination in Arts and Science, 567—596
Examination Questions for B.D., 754—760
—— —— for Degrees in Law, 743—753
—— —— for Degrees of M.B. and Ch.B., 737—743
—— —— for Degrees in Science, 682—725
—— —— for M.A., 596—682
—— —— for Snell Exhibitions, 763—768
—— —— for Medical Preliminary, 730—737
—— —— for Diploma in Education, 725—730
Examiners for Degrees, 25, 46, 211, 253, 263, 270, 274, 279, 283, 300, 306, 309
——, Preliminary, 26, 210

Exegesis, New Testament, Degree Subjects, 310, 313
——, Examination Questions in, 756
Exhibitions—*see under Scholarships*
Extra-Academical Teaching, *Regulations*, 777
—— ——, *List of Teachers*, 781
Eye, Diseases of the, Course in, 130

Factors, University, 26
Faculties, 43, 60, 71
Faculties and Classes, Separate, 60, 71, 167
Faculty of College, 33
Fees, Class, 60, 167
——, Enrolment, 58
——, Entrance, 58
——, Examination and Graduation, 58, 246, 258, 265, 271, 280, 284, 300, 302, 308, 314
——, Library, 59
——, Matriculation, 58
——, Registration, 59
Fellowships—*see under Scholarships*
Fevers, 71, 130
Financial Statement for 1907-1908, 770—774
Forensic Medicine, Course in, 123, 139
——, Degree Subjects, 307
——, Certificates of Merit, 537, 544
——, Examination Questions in, 741, 742, 753
Franco-Scottish Society, 365
French, Course in, 76, 170
——, Degree Subjects, 232, 242
——, Examination Questions in, 582, 601, 673, 733
——, Certificates of Merit, 561, 565
French and German, Group of, 224
French, Italian, Latin, Group of, 224

Gaelic, 589
General Council, 46
Geography, Course in, 92
Geology, Course in, 99
——, Degree Subjects, 239, 256
——, Certificates of Merit, 550
——, Examination Questions in, 688
German, Course in, 78, 170
——, Degree Subjects, 233, 243
——, Examination Questions in, 584, 603, 677, 734
——, Certificates of Merit, 561, 566
ermanic Language, Group of, 224
ilford Lectureship, 162
Glasgow and West of Scotland Technical College, 259
Gown, Academical, 51, 316
Graduates in Arts, 1908-1909, 524—528
—— Divinity, —, 518
—— Law, —, 518, 519
—— Letters, 523
—— Medicine, —, 519—522
—— in Science, —, 522, 523
Graduation in the several Faculties, 209
——, Ceremony of, 318
Graduation Fees—*see Fees*
—— Terms, 301
Graham Young Lectureship, 165
Greek, Course in, 73
—— Class Prize List, 560
——, Degree Subjects, 230, 241
——, Examination Questions in, 573, 574, 598, 636, 761
——, Vacation Exercises, 768
——, New Testament 157
Grieve Lectureship, 119, 159
Gymnasium, 52
Gynaecology—*see Women, Diseases of*

Hastie Lectureship, 165
Hebrew and Semitic Languages, Course in, 151
Hebrew and Semitic Languages, Class Prize List, 533
——, Degree Subjects for M.A., 235, 244
——, —— for B.D., 310, 313
——, Examination Questions in, 591, 611, 754
——, Vacation Exercises, 768
Herbarium, 111
Hermeneutics, Examination Questions in, 760
Higher Degrees, 289
History, Course in, 93
——, Class Prize List, 554
——, Degree Subjects in, 240, 245
——, Examination Questions in, 631, 767
——, Group of, 224, 245
History and Law, Department of, 93, 222, 240, 631
History, Ecclesiastical—*see Ecclesiastical History*
Honours List, 480—517
Honours Groups, 223
Honyman Gillespie Lectureship, 100

Hoods—*see Dress*
Hospital—*see Infirmary*
Humanity, Course in, 71
——, Degree Subjects, 229, 241
—— Class Prize List, 558
—— Vacation Exercises, 769
Hunterian Museum, 205
—— ——, Donations to, 207

India Civil Service—*see Civil Service*
Infirmary, Eye, 70
——, Royal, 69
——, Western, 67
Insanity, 70, 130
——, Certificates of Merit, 541
Italian, Course in, 79
——, Degree Subjects, 234, 243
—— Examination, Questions in, 586

Joint Board of Examiners, 26, 209, 210, 217, 277
Jurisdictio Ordinaria, Court of, 34
Jurisprudence, Course in, 141
——, Degree Subjects in, 307
——, Class Prize List, 536
——, Examination Questions in, 750

Language and Literature, Department of, 71, 222, 229, 596
Latin—*see Humanity*
——, Degree Subjects, 229, 241
——, Examination Questions in, 570, 571, 596, 633, 763
Law, Degrees in—*see Degrees*
——, Faculty of, 44, 66, 133, 303, 341, 475, 518, 535
——, Civil, Course in, 139
——, ——, Degree Subjects, 240, 306
——, ——, Examination Questions in, 743
——, ——, Class Prize List, 536
Law, Constitutional, and History, Course in, 94, 140
——, ——, Degree Subjects, 240, 307
——, ——, Examination Questions in, 751
——, ——, Class Prize List, 537
——, International Private, 142
——, ——, Degree Subjects, 307
——, ——, Class Prize List, 536
——, ——, Examination Questions in, 748
——, Mercantile, Course in, 143
——, ——, Degree Subjects, 307
Law, Mercantile, Class Prize List, 537
——, ——, Examination Questions in, 752
——, Philosophy of, Course in, 141
——, ——, Degree Subjects, 307
——, ——, Examination Questions in, 750
——, Public International, Course in, 142
——, ——, Degree Subjects, 307
——, ——, Examination Questions in, 747
——, ——, Class Prize List, 536
——, Roman—*see Civil Law*
——, Scots, Course in, 137
——, ——, Degree Subjects, 306
——, ——, Class Prize List, 535
——, ——, Examination Questions in, 745
Leaving Certificates, 216
Lecturers, 21, 44
Lecturers, Extra-Academical, 781
Letters, Doctor of—*see Higher Degrees*
Library, Divinity Hall, 205
——, University, *Regulations*, 194
——, ——, Catalogues, 198
——, ——, Committee, 28
——, ——, Donations to, 199—205
Literature, English Language and—*see English Language and Literature*
Logic and Rhetoric, Course in, 81, 171
—— Class Prize Lists, 557
Logic and Rhetoric, Degree Subjects, 236, 244
——, Examination Questions in, 614, 639
Lord Provost, 19, 39

M'Callum Celtic Lectureship—*see Celtic*
Marine Engineering—*see Naval Architecture*
Masters of Arts, 1908-1909, 524—528
Materia Medica, Course in, 120
——, Practical, 120
—— Class Certificates of Merit, 546, 563
——, Examination Questions in, 740
Mathematics, Course in, 87
——, Degree Subjects, 238, 245
—— Class Prize Lists, 554
——, Examination Questions in, 577, 578, 618, 642, 693
Mathematics and Natural Philosophy, Group of, 224, 245, 642
Matriculation Fees, 51, 58
Mechanics—*see Civil Engineering*
Medal, University 462, 479, 531
Medals (Gold)—Bellahouston, 301, 448, 532
——, —— Cleland, 450, 555

Medals (Gold)—Cleland and Rae Wilson, 450, 532, 533, 534
——, —— Cowan, 451, 559, 560
——, —— Cunninghame, 451, 554
——, —— Dobbie-Smith, 452, 479, 531
——, —— Ewing, 452, 479, 531
——, —— Gartmore, 453, 479
——, —— Jeffrey, 456, 560
——, —— Logan (Thomas) Memorial, 457, 471, 517, 531
——, —— Macleod, 458
——, —— Ramsay Memorial, 459, 558
——, —— Scott-Macfarlan, 461, 560
—— (Medical), 537—550, 562—564
——, Lindsay Burnet, 448, 473
——, Edward Caird, 557
——, Gairdner, 128, 540
——, Royal Scottish Geographical Society, 453
——, Straits Settlements, 461
——, Struthers, 461
Medical Preliminary, 217, 285, 730—737
—— Jurisprudence, Degree Subjects in, 307
——, —— Certificates of Merit, 541
—— ——, Examination Questions in, 741, 743
Medical Students, Registration of, 285
Medical Study, Order of, 109
Medicine, Bachelors of, 1908-1909, 521
Medicine, Doctors of, 1908-1909, 519
Medicine, Faculty of, 43, 60, 64, 109, 167, 211-284, 342, 474, 508, 519, 537, 562, 730, 737
Medicine, Clinical, Course in, 128
——, ——, Class Certificates of Merit, 540
Medicine, Graduation in—*see Degrees*
Medicine, Institutes of—*see Physiology*
——, Practice of, Course in, 127
——, ——, Class Certificates of Merit, 540, 562
——, ——, Examination Questions in, 742
Member of Parliament, 19, 48
Memoirs, etc., 318.
Mental Philosophy, Department of, 82, 222, 236, 557, 614
Mercantile Law—*see Law, Mercantile*
Metallurgical Chemistry, Course in, 97, 165
——, Certificates of Merit, 550
——, Examination Questions in, 715
Metaphysics—*see Logic*
idwifery, Course in, 129
—— Class Certificates of Merit, 541, 563
Midwifery, Examination Questions in, 743
Millport Marine Station, 27, 208
Mine Management, 107
Mining Engineering, Certificates in, 553
——, Degree of B.Sc. in, 261
——, Examination Questions in, 716
Mining, Course in, 106
——, Class Prize List, 553
Moral Philosophy, Course in, 83, 171
——, Degree Subjects, 237, 244
——, Class Prize Lists, 557, 565
——, Examination Questions in, 615, 641
——, Vacation Exercises, 769
Muirhead Demonstratorship of Physiology, 45, 158
Museum, Hunterian, 205
——, ——, Donations to, 207
Museums Committee, 28

Nations, Matriculated Students divided into, 35
Natural History—*see Zoology*
Natural Philosophy, Course in, 88
——, Degree Subjects, 238, 245
——, Class Prize Lists, 555
——, Examination Questions in, 621, 649, 695
Natural Theology—*see Gifford Lectureship*
Naval Architecture and Marine Engineering, Course in, 108
——, Prize List, 553
——, Examination Questions in, 709
Nose—*see Throat*

Oath at Medical Graduation, 301
Observatory, 95
Observatory and Laboratories Committee, 28
Obstetrics—*see Midwifery*
Officers, University, 19
Operative Surgery, 126, 539
Ophthalmic Institution, 70
Ophthalmology, 130
Order of Study in Arts, 223
Order of Medical Study—*see Medical Study*
Order of Study in Theology, 144
Organic Chemistry, Course in, 96, 114
——, Certificates in, 550

Pædagogium, 30
Parliament, Representative in, 19, 48

Pastoral Training—*see Divinity*
Pathology, Course in, 121
—— Class Certificates of Merit, 543
——, Examination Questions in, 741
Persian, 593
Pharmacy—*see Materia Medica*
Philosophy, Doctor of—*see Higher Degrees*
Philosophy, Group of, 224, 244, 639
——, Moral—*see Moral Philosophy*
Philosophy, Natural—*see Natural Philosophy*
Philosophy, Political—*see Political Philosophy*
Physic, Practice of—*see Medicine, Practice of*
Physical Chemistry, Course in, 98
Physical Laboratory, 90, 556
Physics, Course in, 91
——, Class Certificates of Merit, 549
——, Examination Questions in, 738
Physiological Chemistry, 119
Physiology, Course in, 117
——, B.Sc. Degree Subjects, 256
——, Class Certificates of Merit, 545
——, Examination Questions in, 688, 740
Political Economy, Course in, 85
——, Degree Subjects, 237, 307
—— Class Prize List, 558
——, Examination Questions in, 616
Political Philosophy, 84, 558
Post-Graduate Study and Research, 114, 117, 122, 180, 188
Preliminary Examinations in Arts and Science, 209, 212, 217, 250, 259, 267, 276
——, Examination Questions, 567—596
——, Table of Examinations, 217
Preliminary Examination in Medicine, 209, 285
——, Examination Questions, 730—737
Principal, 19, 38
Prize and Degree List, 1908-1909, 518—566
Prizes, Class, 1908-1909, 532
Prizes—*Regulations*, 446—463
  Arnott, 447, 475, 531
  Bellahouston, 448, 532
  Blackstone Examination, 451, 559, 560
  Brunton Memorial, 448, 475
  Buchanan, 448, 557
  Burnet (Lindsay), 448, 473
  Caird (Edward), 557
  Cleland, 450, 555
  Cleland and Rae Wilson, 450, 532, 533, 534
  Cobden, 450
  Coulter, 450, 479, 531
  Cowan, 451, 599, 600
  Cunninghame, 451, 554
  Dickson, 451, 532
  Dobbie-Smith, 452, 479, 531
  Dowanhill, 452, 477
  Ewing, 452, 479, 531
  Findlater, 453, 477, 531
  Gairdner, 128, 503
  Gartmore, 453, 479
  Geographical Society, 453
  Gladstone Historical, 453, 471
  Gladstone Memorial, 454, 470, 532
  Harvey, George, 454
  Henderson, 455, 479, 531
  Italian, 455
  Jamieson, 455, 531
  Jeffrey, 456, 560
  Kirk Memorial, 456, 473
  Logan (Thos.) Memorial, 457, 471, 532
  Luke Historical, 457, 532, 761
  Macfarlan and Cook, 457, 477
  Mackenzie, 458
  Macleod, 458
  Meteorological Society, 458
  Muirhead, 459, 558
  Muirhead, George Roger, 459, 549
  Nichol Memorial, 459, 565
  Oriental Society, 459, 534
  Procurators, Faculty of, 137, 138, 535, 536
  Rae Wilson—*see Cleland*
  Ramsay Memorial, 459, 558
  Reid, John, 460
  Ross, Robert, 137, 138, 460, 535
  Scott-Macfarlan, 461, 560
  Smart (Alexander) Memorial, 558
  Straits Settlements, 461
  Struthers, 461
  University, 462, 479, 531
  Walker, 462, 551
  Watson Historical, 463
——, University, 1908-1909, 531
——, ——, for 1909-1910, 479
Professional Education for Degrees in Medicine and Surgery, 289
——, Examinations for, 295, 737
—— ——, First, 109, 295, 737
—— ——, Second, 115, 295, 740
—— ——, Third, 121, 295, 741
—— ——, Fourth, 126, 295, 742
—— ——, for M.D., 297
—— ——, for Ch.M., 299
Professors, 19, 60
Professorships, Foundation of, 31
Programme of Classes, 1909-1910, 60, 167
Provincial Committee for Training Teachers, 775
Psychology, 83, 120
Public Health—*see Forensic Medicine*
—— ——, Degrees in Science in, 274
Public Law—*see Law, Public*

Pure Science, Degrees in, 25[illegible], 258, 408, [illegible]23, 682

Queen Margaret College, 1[illegible]

Radio-activity—see *Physical Chemistry*

Reading Room, 199

Recognition of Teachers and Schools, [illegible], 259, 268, 277, 293, 777

Rector of the University, 19, 35

Regents, 30

Registration of Medical Students, 285

—— of Medical Practitioners, 301

Representatives of Senate, 27

Representatives of University Court, 27

Research Students, 90, 114, 171

Research Studentship—see *Houldsworth, under Scholarships*

Research Work, 91, 171, 174, 318

Rhetoric—see *Logic and Rhetoric*

Robertson (Alexander) Lectureship, 103

Roman Law—see *Law, Civil*

Sanitary Law, 724

Sanitation, Practical, 723

Scholarships, Fellowships, Exhibitions—
Regulations, 418–445
- Armagh, 340, 470
- Barbour, 418
- Black Theological, 419
- Breadalbane, 420
- Carnegie Fellowships and Scholarships, 181–188
- Clark, George A., 421, 469
- Clark, John (Mile-end), 423, 470
- Coats Memorial, 424, 475
- Donaldson, Alexander, 425, 473
- Donaldson, Robert, 42[illegible]
- Eglinton, 425, 470
- Ewing, William, 427, 470
- Exhibition (1851), Science, 428
- Ferguson, 429
- Foulis Memorial, 431
- Grocers Company, 431
- Houldsworth, William, 432
- Lloyd's Register, 433, 473
- Lowson Memorial, 433
- Luke, 433
- M'Cunn, 434
- Mackay Smith, 43[illegible], 471
- Mackinnon, 435, 470
- Metcalfe, 436
- Mining, 437
- Newlands, 437, 471
- Reid Stewart, 438
- Robertson, R. W., 439, 476
- Sandford, 440, 471

Scholarships, Fellowships, Exhibitions—
- Scott, 440
- Shaw Philosophical, 441
- Snell (at Oxford), 443, 470, 7[illegible]
- Thomson Experimental, 444
- Watt, James, 44[illegible], 475

——, ——, Competition, 1909-191[illegible], [illegible]

Science, Degrees in, [illegible]

——, Degrees conferred, [illegible]

——, Department of, 87, 222, [illegible]

——, Doctorate of—see *Higher Degrees*

——, Engineering, Certificate in, 268, [illegible]

——, Faculty of, 43, 62, 94, 168, 251, [illegible], 47[illegible], 498, [illegible], 682

——, Preliminary Examination in, 217, [illegible], [illegible], 267, 270

Semitic Languages—see *Hebrew*

—— ——, Group of, 224, 244

Senatus Academicus, 19, 33, 43

Skin, Diseases of the, 71, 142

Smith (Adam) Chair, [illegible]

Social Economics, [illegible]

Societies, University, 787

Spanish, Examination Questions in, [illegible]

Special Training by Scholars and Fellows, 474

Students, [illegible]

Students Matriculated in 1908-9, [illegible]

Students' Representative Council, [illegible]

Studies—see *Courses*

Surgery, Course in, 12[illegible]

——, Class Certificates of Merit, [illegible], 562

——, Examination Questions in, 742

Surgery, Clinical, Course in, 12[illegible]

——, ——, Class Certificates of Merit, [illegible], 562

——, Graduation in—see *Degrees*

Surgery, Bachelors of, 1908-1909, 721

Synopses of Courses in the several classes, [illegible]

Syriac—see *Hebrew*

Textual Criticism, Examination Questions in, 759

Theology, Faculty of, 44, 67, 144, [illegible], 341, 470, 478, 532, 714

Therapeutics—see *Materia Medica*

Theses for Higher Degrees, 281, 282, 283, 298, 299

Throat and Nose, Diseases of the, 65, 66, 141, 542

University, The, 29

University Assistants, 23, 45
—— Buildings, 31
—— Chapel, 52
—— Court, 19, 39
—— Fees, 58
University, Government of the, 33
—— Officers, 19
—— Societies, 787

Vacation Exercises, 768
Vaccination, 293
Veterinary Hygiene, Examination Questions in, 720
Vice-Chancellor, 19, 35
Vital Statistics, 724

Waltonian Lectureship, 161
West of Scotland Agricultural College, 267 268
Women, Diseases of, 129
——, ——, Certificates of Merit, 541
——, Bursaries for, 341
Women's Department, 52, 166, 562

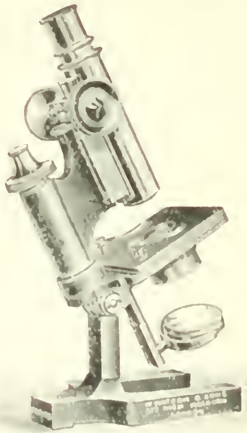
Young Assistantship, 45, 101

Zoology, Course in, 112
——, Degree Subjects, 239, 256
——, Examination Questions in, 690, 737
——, Certificates of Merit, 548

GLASGOW: PRINTED AT THE UNIVERSITY PRESS BY ROBERT MACLEHOSE AND CO. LTD.

W. W. SCOTT & CO., LTD.,

180 SAUCHIEHALL STREET,
GLASGOW.



MICROSCOPES
FOR STUDENTS
From £1.

Glasgow Depot for W. WATSON & SONS, LTD.,
MICROSCOPES AND ACCESSORY APPARATUS;
also by LEITZ, ZEISS, REICHERT, & BECK.

LARGE DESCRIPTIVE CATALOGUE FREE ON APPLICATION.

Telephones { National, 580 Douglas.
Post Office, 4580.

ST. ENOCH HOTEL, GLASGOW.

Table d'Hôte Luncheon, 12.30 to 2.30 p.m.,	- -	2/6.
,, ,, Dinner, { 6.0 to 8.0 p.m. (Winter), 6.30 to 8.30 p.m. (Summer), }		5/-.
Afternoon Tea, served in Lounge or Drawing Room,	-	1/-.

STATION HOTEL, TURNBERRY.

Sea-Water Baths. Golf. Tennis. Croquet. Etc.

EN PENSION TERMS ARRANGED.

The STATION HOTELS at AYR and DUMFRIES

Will be found Comfortable and Convenient for Rest and Holiday.

For "Pictorial Post-Card Tariff," and particulars of Week-end Combined Rail and Hotel Coupons apply

J. H. THOMAS, Manager,
G. & S.-W. Ry. Coy.'s Hotels.

CHIEF OFFICE,
. ENOCH HOTEL, GLASGOW.

G. MACKIE, *Chemist.*

CENTRAL DEPOT FOR DRUGS, PATENT MEDICINES,
Toilet, Sickroom, and Nursery Requisites, etc.,
AT KEENEST CASH PRICES.

PRESCRIPTIONS Carefully Dispensed at Moderate Rates.
Letter Orders, Telegrams, Telephone Messages receive prompt attention.

Proprietor of **JEFFE HEADACHE CACHETS.**
An absolutely safe remedy for Neuralgia, Nervous Headache, Toothache, Cold in the head, etc. Rapid and certain in their action.
Per Packet 1s.: Post Free 1s. 1d.

Dr. JOHNSON'S CORN SILK, the Unrivalled Corn Remover.
Corns and thickened skin entirely removed in three or four days, without pain or inconvenience. **Per Packet, 7½d.: Post Free, 8d.**

MEDICAL SUPPLY STORES.
73 RENFIELD STREET, GLASGOW.
National Telephone No. 5449.
Post Office ,, No. 733.

IN A FEW DAYS

THE SCARLET GOWN

Being a Collection of Student Songs

BY THE LATE
R. F. MURRAY, ST. ANDREWS

New and Enlarged Edition, with Preface by ANDREW LANG
2s. 6d. nett

GLASGOW: JAMES MACLEHOSE & SONS
PUBLISHERS TO THE UNIVERSITY
And all Booksellers

SOME MEDICAL BOOKS.

ANDERSON—Lectures on Medical Nursing. By J. Wallace Anderson, M.D. Sixth Edition. F'cap. 8vo. 2s. 6d.

BARR—Manual of Diseases of the Ear, including the Nose and Throat in relation to the Ear. By Thomas Barr, M.D., F.F.P.S. (Glas.), and J. Stoddart Barr, M.B., Ch.B. 4th edition, entirely revised and largely re-written. 14s. nett.

BRYCE and TEACHER—Contributions to the Study of the Early Development and Imbedding of the Human Ovum. I. An Early Ovum imbedded in the Decidua. By Thomas H. Bryce, M.A., M.D., and John H. Teacher, M.A., M.D. II. An early Ovarian Pregnancy. By Thomas H. Bryce, John H. Teacher, and John M. Munro Kerr, M.B. One volume, 4to, with numerous Plates, many of which are coloured. 12s. 6d. nett.

CAMERON—On the Evolution of Wound-Treatment during the last Forty Years. By Sir Hector C. Cameron, Professor of Clinical Surgery in the University of Glasgow. Crown 8vo. 3s. 6d. nett.

CLELAND and MACKAY—Human Anatomy. By John Cleland, M.D., F.R.S., and John Yule Mackay, M.D. Illustrated. Medium 8vo. 28s. nett.

CLELAND and MACKAY—A Directory for the Dissection of the Human Body. F'cap. 8vo. 3s. 6d. nett.

DOUGLAS—Chemical and Microscopical Aids to Clinical Diagnosis. By Carstairs C. Douglas, M.D., B.S. Crown 8vo. Illustrated. 4s. 6d. nett.

DOWNIE—Clinical Manual for the Study of Diseases of the Throat. By J. Walker Downie, M.B. Crown 8vo. Illustrated. 10s. nett.

[New edition now ready.]

EISHMAN—A System of Midwifery. By William Leishman, M.D. Fourth Edition. 2 vols. Demy 8vo. 25s.

OVE and ADDISON—Deaf-Mutism. A Treatise on Diseases of the Ear as shown in Deaf-Mutes, with Chapters on the Education and Training of Deaf-Mutes. By James Kerr Love, M.D., and W. H. Addison. Demy 8vo. Illustrated. 9s. nett.

ACARTNEY—The Vermiform Appendix and its Diseases. By Duncan Macartney, M.D. 3s. 6d. nett.

ACEWEN—Atlas of Head Sections. 53 Engraved Copper Plates of Frozen Sections of the Head, with 53 Key Plates with Detailed Descriptions and Illustrative Text. Demy 4to. 70s. nett.

ONRO—Raynaud's Disease (Local Syncope, Local Asphyxia, Symmetrical Gangrene). By T. K. Monro, M.A., M.D. Crown 8vo. 5s. nett.

AMSAY—Eye Injuries and their Treatment. 25 full-page Plates in Colour and Photogravure, with full Descriptive Text. By A. Maitland Ramsay, M.D. Royal 8vo. 18s. nett.

AMSAY—Pharmacopeia of the Glasgow Royal Infirmary Ophthalmic Institution. F'cap. 8vo. 2s. 6d. nett.

TEVEN—Outlines of Practical Pathology. An Introduction to the Practical Study of Morbid Anatomy and Histology. By J. Lindsay Steven, M.D. Crown 8vo. 7s. 6d.

MES MACLEHOSE & SONS, 61 ST. VINCENT ST., GLASGOW,

PUBLISHERS TO THE UNIVERSITY OF GLASGOW.

Works by Edward Caird, D.C.L., late Master of Balliol.

The Critical Philosophy of Immanuel Kant.
By EDWARD CAIRD, M.A., LL.D., late Master of Balliol College, Oxford, and Professor of Moral Philosophy in the University of Glasgow. 2 vols. Demy 8vo. New Edition. 25s. nett.

Lay Sermons and Addresses.
Delivered in Balliol Hall. Second Edition. Post 8vo. 6s. nett.

The Evolution of Theology in the Greek Philosophers.
Being the Gifford Lectures delivered in the University of Glasgow. 2 vols. Post 8vo. 14s. nett.

The Evolution of Religion.
Being the Gifford Lectures delivered before the University of St. Andrews. Third Edition. 2 vols. Post 8vo. 12s. nett.

The Social Philosophy and Religion of Comte.
Second Edition. Post 8vo. 5s. nett.

Essays on Literature.
Second Edition. Post 8vo. 5s. nett.

Uniform Edition of Principal Caird's Works.

University Addresses on Subjects of Academic Study.
Delivered to the University of Glasgow. By JOHN CAIRD, D.D., LL.D., late Principal and Vice-Chancellor of the University of Glasgow. *Third Thousand.* Post 8vo. 4s. 6d. nett.

University Sermons.
Preached before the University of Glasgow. 1873-1898. *Fourth Thousand. With Portrait.* Post 8vo. 4s. 6d. nett.

The Fundamental Ideas of Christianity.
Being the Gifford Lectures delivered to the University of Glasgow. By PRINCIPAL CAIRD. With a Memoir by EDWARD CAIRD, D.C.L., LL.D., late Master of Balliol. 2 vols. *Fourth Thousand. With new Portrait.* Post 8vo. 9s. nett.

An Introduction to the Philosophy of Religion.
Seventh Thousand. Post 8vo. 4s. 6d. nett.

James MacLehose and Sons,
Publishers to the University of Glasgow.

London, New York and Toronto: Macmillan and Co., Ltd.

Works by PROFESSOR HENRY JONES.

Idealism as a Practical Creed. Crown 8vo. 6s.

Browning as a Philosophical & Religious Teacher. Crown 8vo. Fifth Edition. 3s. 6d. nett.

"Mr. Jones is a diligent and appreciative student of Browning, and he handles the philosophical topics suggested by his subject with firm grasp and clear insight."—*Times.*

A Critical Account of the Philosophy of Lotze. The Doctrine of Thought. Crown 8vo. 6s. nett.

"This is a genuine contribution to philosophy. It amounts to a destructive criticism of the half-hearted attitude adopted by Lotze towards the problem of thought and reality."—Mr. BERNARD BOSANQUET in the *Pall Mall Gazette.*

Social Responsibilities. Lectures to Business Men. Demy 8vo. 1s. nett.

Works by PROFESSOR JOHN WATSON.

An Outline of Philosophy. Fourth Edition, revised and greatly enlarged. Crown 8vo. 7s. 6d. nett.

The Philosophy of Kant. As contained in Extracts from his own Writings. Selected and Translated by JOHN WATSON, LL.D. Sixth Edition. Crown 8vo. 7s. 6d.

The Philosophy of Kant Explained. Post 8vo. 10s. nett.

The Philosophical Basis of Religion. By JOHN WATSON, LL.D., Professor of Moral Philosophy in the University of Queen's College, Kingston, Canada. Crown 8vo. 8s. 6d. nett.

A Short History of Philosophy. By ARCHD. B. D. ALEXANDER, M.A. 1 vol. Post 8vo. Second Edition. 600 pages. 8s. 6d. nett.

Prof. Marcus Dods writes: "It is no mere compilation of second-hand information, but a perspicuous account of the whole development of philosophy by one who has made himself acquainted with all the great thinkers by a careful study of their own writings."—*British Weekly.*

Ethics of Citizenship. By JOHN MACCUNN, M.A., Professor of Philosophy in University College, Liverpool. Fourth Edition. Crown 8vo. 2s. 6d. nett.

Spinoza's Political and Ethical Philosophy. By ROBERT A. DUFF, M.A., Lecturer on Moral and Political Philosophy in the University of Glasgow. Demy 8vo. 528 pp. 10s. 6d. nett.

GLASGOW: JAMES MACLEHOSE AND SONS
Publishers to the University

LONDON, NEW YORK AND TORONTO: MACMILLAN AND CO., LTD.

One volume. 424 pages, with Portraits and full-page Engravings. 10s. 6d. nett

MEMOIR OF
ROBERT HERBERT STORY

D.D., LL.D.

PRINCIPAL AND VICE-CHANCELLOR OF THE
UNIVERSITY OF GLASGOW
ONE OF HIS MAJESTY'S CHAPLAINS IN SCOTLAND

BY HIS DAUGHTERS

BRITISH WEEKLY.

This is truly a 'find' in biography. . . . There is nothing to skip—everything is so full of human as well as historical interest. . . . To find 'Story' among the biographies is like finding Simon Peter among the good apostles—the breezy, tempestuous, fiery fellow, every inch an apostle, no doubt; but also every inch a man.

WESTMINSTER GAZETTE.

It was his to see many a cause he had championed, and which he had been almost excommunicated for upholding, become part of the accepted policy of the Church.

SCOTSMAN.

This Memoir, prepared with pious care by the daughters of the late Principal, reveals an aspect of his character that was little suspected by the multitude, though it was deeply impressed on all who came within the circle of his friendship.

He was intensely tender hearted; he had a rare sense of humour; he was a racy story teller, who enjoyed nothing better than a laugh against himself; he was a great lover of animals; he nursed no personal animosities and kept alive no grudges; he was, in short, 'best loved by those who knew him best.'

GLASGOW HERALD.

This Memoir will be read by many with glad surprise. There was no man of his day who was perhaps more misunderstood and misjudged than the late Principal of Glasgow University. To those who knew him in private he was the tenderest, kindest, and gentlest of men, very willing to help, and laughing half humorously at his own attacks on men and movements that failed to win his confidence or gain his sympathies. Dr. Story's daughters are to be heartily congratulated. They have discharged their pious task with a tact and delicacy which are above all praise.

The record is told in this attractive Memoir, in a bright and interesting way, every page almost being lightened up by a witty letter, a pointed utterance, or a humorous story.

The excellent illustrations which are in the volume add, if possible, to the value of a book whose merits from a biographical point of view are worthy of all praise.

GLASGOW
JAMES MACLEHOSE AND SONS
PUBLISHERS TO THE UNIVERSITY
AND ALL BOOKSELLERS

HILLIARD,

(Late of 63 Renfield Street)

157 HOPE STREET, GLASGOW.

Makers by Appointment to
Royal, Western, and Victoria Infirmaries
and other Institutions.

Telephones { 306 Argyle, National.
306 Post Office.

Telegrams—"Hilliard, Glasgow

PROFESSOR SIR WILLIAM MACEWEN'S Instruments for Osteotomy, Spinal and Brain Surgery.

PROFESSOR W. L. REID'S Gynaecological Instruments.

PROFESSOR JOHN MACINTYRE'S Throat Instruments.

DR. JAMES H. NICOLL'S Urethral Instruments; and all the Latest Glasgow Designs in Surgical and Orthopaedic Appliances.

Artificial Limbs of Unique Design. Elastic Spinal Traction (Hilliard's Patent).
The "Milne" Chloroform Mask (Regd.) Etc., Etc.

STUDENTS' REQUISITES FOR ANATOMY AND CLINICAL CLASSES
Of correct authorised Patterns and Designs.
AGENTS FOR ZEISS, MEDICAL MICROSCOPES, Etc.

J. & W. Guthrie & Andw. Wells, Ltd.

237 WEST GEORGE ST.
GLASGOW

Memorial Windows

Glass Stainers & Lead Glaziers

Church and House Decorators

ESTABLISHED 1852.

AWARDS.—Silver Medal, Edinburgh, 1886.
Silver Medal, Paris, 1900.
Bronze Medal, Paris, 1900.
Hon. Mention, Paris, 1900.

PROFESSORS, MASTERS, STUDENTS.

To all, a good reliable Fountain Pen is a necessity.
THE BEST FOUNTAIN PEN is however a greater necessity. That means, you need a

"SWAN"

FOUNTPEN.

PRICES:

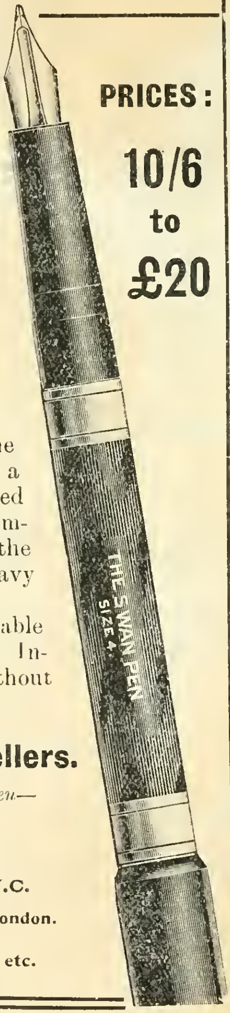
10/6
to
£20

The "Swan" is Best because it has the highest grade gold nib ever put in a fountain pen. It has a sure feed—by feed we mean an ink conductor and air compensator. Ink is fed to both sides of the nib, so that the light writer or the heavy hand has the right supply of ink.
Takes up little Pocket room; Simple, Reliable Mechanism—Good for Years; Writes Instantly at the Lightest Touch, without Coaxing; never Skips or Blots.

Sold by all Stationers and Jewellers.

Our Illustrated Booklet tells about the Swan Pen—write for it to day.

MABIE, TODD & CO.,
79 and 80 High Holborn, London, W.C.
93 Cheapside, E.C., 95a Regent Street, W., London.
3 Exchange Street, Manchester;
and at Paris, Brussels, New York, Chicago, etc.



CENTENARY 1809-1909.

NORTH BRITISH AND MERCANTILE INSURANCE COMPANY.

FIRE—LIFE

ANNUITY—BURGLARY—ACCIDENT—MARINE—TRANSIT OF SECURITIES.

REVENUE 1908,	*TOTAL FUNDS,*	*CLAIMS PAID,*
£4,261,436	**£19,121,310**	**£60,453,134**

GLASGOW BRANCH OFFICE—102 ST. VINCENT STREET.

Local Manager—DAVID L. LAIDLAW.

AUTOTYPES FOR HOUSE DECORATION,

Specially Suitable for Staircases and Halls.

T. & R. ANNAN & SONS.

AUTOTYPE REPRODUCTIONS of Old Masterpieces and Modern Pictures, from the Collection of the Corporation of Glasgow; The Scottish National Gallery; The Wallace Collection, London; The National Gallery of Ireland; and many notable Private Collections.

PRICE 12s. 6d. Each.

Specimen Copies suitably framed may be seen at the Gallery

518 SAUCHIEHALL STREET, GLASGOW,

Where Illustrated Catalogue may be had on application.

THE GLASGOW AND WEST OF SCOTLAND TECHNICAL COLLEGE, GLASGOW.

THE College offers complete Courses of Study in preparation for the Diploma in Mathematics and Physics; Chemistry; Civil Engineering; Mechanical Engineering; Electrical Engineering; Naval Architecture; Metallurgy; and Mining. Holders of the Diploma are eligible for the Degree of B.Sc. in the University of Glasgow after attendance for at least one Session upon prescribed University Courses. New and well-equipped Laboratories in the Departments of Physics, Chemistry, Technical-Chemistry, Dyeing, Metallurgy, Mechanics, Motive Power Engineering, Electrical Engineering, Biology and Bacteriology have been provided.

In conjunction with the Glasgow School of Art a Course for a joint Diploma in Architecture has been arranged.

EVENING CLASSES.

Instruction is provided in all the Subjects of the Day Courses as well as in many Technological branches.

SESSION 1909-1910 will begin as follows:
DAY CLASSES, - - - - - September 28th, 1909.
EVENING CLASSES, - - - September 23rd, 1909.

The CALENDAR (Price 1/-, by post 1/4) and Prospectuses will be sent on application to the Secretary.

James Thomson & Son

ROBE MAKERS

By Appointment to the University

189-191 West George Street

GLASGOW

TAILORS AND CLOTHIERS

CLERICAL and LEGAL ROBES in STOCK or to ORDER

GRADUATES' GOWNS AND HOODS ON HIRE